D 107.8: 967-68

UNITED STATES MILITARY ACADEMY

WEST POINT • NEW YORK

1967 • 1968
CATALOGUE

UNIVERSITY OF FLORIDA LIBRARIES
NOV
1967
DOCUMENTS

DUTY
HONOR
COUNTRY

UNITED STATES MILITARY ACADEMY

CATALOGUE

1967—1968

ONE HUNDRED SIXTY-SIXTH YEAR

1967

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

1968

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Academic Calendar 1967-68

1967

3 July	Mon	New Fourth Class enters (Class of '71).
4 July	Tues	Independence Day. (Duties suspended.)
27 August	Sun	Beginning of Reorganization Week.
2 September	Sat	End of Reorganization Week.
4 September	Mon	Labor Day. (Duties suspended.)
5 September	Tues	First Term begins.
27 October–29 October	Fri–Sun	Homecoming Weekend.
28 October	Sat	(Classes suspended.)
11 November	Sat	Veterans Day. (Classes suspended.)
23 November	Thurs	Thanksgiving Day. (Classes suspended.)
22 December	Thurs	Christmas leave begins at 12:00 noon.

1968

3 January	Wed	Christmas leave ends at 5:30 p.m.
20 January	Sat	First term ends at 12:00 noon.
22 January	Mon	Second term begins.
7 February	Wed	Graduate Record Exam for 1st Class.
22 February	Thurs	Washington's Birthday. (Classes suspended.)
21 March	Thurs	Spring leave for three upper classes begins at 3:15 p.m.
21 March–25 March	Thurs–Mon	Plebe Parent Weekend.
25 March	Mon	Spring leave for three upper classes ends at 6:00 p.m.
18 May	Sat	Armed Forces Day. (Classes suspended.)
25 May	Sat	Second Term ends at 12:00 noon for 1st Class.
29 May	Wed	Second Term ends at 3:15 for underclassmen.
30 May	Thurs	Memorial Day. (Duties suspended.)
2 June	Sun	Baccalaureate Sunday.
5 June	Wed	Graduation.
1 July	Mon	New Fourth Class enters (Class of '72).

Table of Contents

	Page
MISSION	1
ADMINISTRATION	2
HISTORY	3
ACADEMIC PROGRAMS	11
EDUCATIONAL ACTIVITIES	74
SCHOLARSHIPS	78
LECTURE PROGRAM	80
LIBRARY	84
MUSEUM	86
MILITARY PROGRAMS	89
AWARDS AND DISTINCTIONS	100
EXTRACURRICULAR ACTIVITIES	109
ADMISSIONS	117
FACILITIES	143
POSTGRADUATE SERVICE LIFE	149
APPENDICES	152
INDEX	205

Digitized by the Internet Archive
in 2016 with funding from
University of Florida, George A. Smathers Libraries

https://archive.org/details/catalogue1967unit

Mission of The Military Academy

The mission of the United States Military Academy is to instruct and train the Corps of Cadets so that each graduate will have the qualities and attributes essential to his progressive and continued development throughout a career as an officer of the Regular Army.

Inherent in this mission are the following objectives:

1. Mental—To provide a broad collegiate education in the arts and sciences leading to the Bachelor of Science degree.

2. Moral—To develop in the cadet a high sense of duty and the attributes of character with emphasis on integrity, discipline, and motivation essential to the profession of arms.

3. Physical—To develop in the cadet those physical attributes essential to a career as an officer of the Regular Army.

4. Military—To provide a broad military education rather than individual proficiency in the technical duties of junior officers. Such proficency is, of necessity, a gradual development, the responsibility for which devolves upon the graduates themselves and upon the commands and schools to which they are assigned after being commissioned.

Graduation and Conferring of Degree

A cadet of the First Class who has been found by the Academic Board to have successfully completed all courses of instruction and training, and otherwise is recommended, shall thereupon become a graduate of the United States Military Academy with the degree of Bachelor of Science.

Promotion and Commissioning of Graduates

Graduated cadets are allowed full pay as second lieutenants from the date of graduation when they are promoted and appointed in the Regular Army.

Administration

The United States Military Academy is under the general direction and supervision of the Department of the Army. The Secretary of the Army has designated the Chief of Staff of the Army as the officer in direct charge of all matters pertaining to West Point.

The immediate government and military command of the Academy and the military post at West Point are vested in the Superintendent. The Dean of the Academic Board coordinates the activities of the academic departments and advises the Superintendent on academic matters. The administration and military training of the Corps of Cadets are under the responsibilities of the Commandant of Cadets, who is also head of the Department of Tactics.

SUPERINTENDENT:
Maj. Gen. Donald V. Bennett, USA.

DEAN OF ACADEMIC BOARD:
Brig. Gen. John R. Jannarone, USA.

COMMANDANT OF CADETS:
Brig. Gen. Richard P. Scott, USA.

INFORMATION OFFICER:
Lt. Col. Robert H. West, Arty.

DIRECTOR OF ADMISSIONS AND REGISTRAR:
Col. Robert S. Day, USA.

History of West Point

The United States Military Academy was established officially on 16 March 1802 at West Point, a key Hudson River military fortress during the Revolution, and was opened on 4 July 1802.

Two compelling reasons made the formation of an American military academy at that time both logical and necessary: the experience of the Revolutionary War and the ominous international political situation when Thomas Jefferson became President in 1801.

The experience of the Revolutionary War, during which America had to rely in large part on foreign drillmasters, artillerists, and trained engineers, made the military and political leaders of the day energetic backers of a military academy. The earliest proposal was in 1776 by Col. Henry Knox who recommended "An Academy established on a liberal plan . . . where the whole theory and practice of fortification and gunnery should be taught." The papers of Gen. Benjamin Lincoln, Gen. Jedediah Huntington, Secretary of War Timothy Pickering, John Adams, Alexander Hamilton, and George Washington mention time and again the need for an academy. In his annual messages to Congress, Washington always included a plea that the Congress provide facilities for the study of military art. In 1797 in his eighth annual message, for example, he said:

> The institution of a military academy is also recommended by cogent reasons. However pacific the general policy of a nation may be, it ought never to be without a stock of military knowledge for emergencies. . . . [The art of war] demands much previous study, and . . . [knowledge of that art] . . . in its most improved and perfect state is always of great moment to the security of a nation. . . . For this purpose an academy where a regular course of instruction is given is an . . . expedient which different nations have successfully employed.

The military academies that "different nations" had "successfully employed" and that Washington likely had in mind were England's Royal Military Academy at Woolwich, founded in 1741, and France's Ecole Polytechnique, founded in 1794. The Royal Military College at Sandhurst in England was founded the same year as our own Academy, 1802. And Washington quite obviously realized that complete independence for America called not only for the severance of political ties from England and the formation of an independent political state, but also for independence in every facet of national life and culture: in law, religion, agriculture, shipbuilding, trading, manufacturing, and military science. How deeply he continued to feel about the need for an Academy appears in a letter written two days before his death and addressed to Alexander Hamilton:

> The establishment of an Institution of this kind, upon a respectable and extensive basis, has ever been considered by me as an object of primary importance to this country; and while I was in the Chair of Government, I omitted no opportunity of recommending it, in my public speeches and other ways, to the attention of the Legislature.

The second compelling reason for the immediate establishment of an American military academy was the ominous international political situation of 1801–02. The previous two decades had been troublesome ones. The weak and ineffectual Articles of Confederation and Perpetual Union, trouble with the Barbary pirates, Shays' Rebellion, boundary disputes, frontier battles, and currency quarrels had plagued the young nation, and now it was threatened by the danger of involvement in the complexities that were coming as an aftermath of the French Revolution of 1789. Public opinion moved toward more energetic national government and better trained armed forces.

So it was that Congress, by its Act of 16 March 1802, authorized a Corps of Engineers, set its strength at five officers and ten cadets, and provided that it be stationed at West Point in the State of New York and constitute a Military Academy.

The garrison site of West Point, consisting of 1,795 acres purchased from Stephen Moore in 1790, had been occupied by the Army since 1778. Hence, barracks and other buildings, while inadequate, were available for housing and instruction, and Maj. Jonathan Williams, grandnephew of Benjamin Franklin and Chief of the Corps of Engineers, who had been appointed as the first Superintendent, was able to open the Academy on 4 July 1802 with ten cadets present.

The initial purpose of the Academy was to train military technicians for all branches of the military service, to encourage the study of military art nationally and thus raise the level of training of the militia, and to encourage the practical study of every science. This last, it should be noted, was advanced at a time when many other American academic institutions looked at the sciences with suspicion and hostility. How well the Academy succeeded in its purpose for the first 10 years of its existence was summarized by the most authoritative historian of that period of American life, Henry Adams. In his *History of the United States* (9 vols., 1889–91), covering the Jefferson and Madison administrations, Adams offers the tribute that American scientific engineering ". . . owed its efficiency and almost its existence to the military school at West Point established in 1802."

In the year 1812, the growing threat of war with England impelled Congress to pass the Act of 29 April 1812 by which the strength of the Corps of Cadets was increased to 250, the academic staff was enlarged,

and the cadets were placed under the discipline of published regulations. A chaplain was authorized who in addition to his religious duties was "to officiate as Professor of Geography, Ethics, and History." The act required also that the cadets be taught "all the duties of a private, a noncommissioned officer, and an officer." This requirement, says Emory Upton in The Military Policy of the United States (1904), was the "key to the character for efficiency and discipline which the graduates have since maintained."

The record of the War of 1812 shows that the Academy graduates served their country well. A quarter of the more than 100—all under 30 years of age—who saw action were killed or wounded; and not one of the fortifications constructed under their direction was captured. Henry Adams was appreciative of their technical skill. "During the critical campaign of 1812," he wrote, "the West Point Engineers doubled the capacity of the little American army for resistance."

The experience of the War of 1812 that gave the Nation new self-assurance affected the Academy's educational aims in the period of peace which followed. No longer was the enemy an immediate threat on our borders; American nationality had been firmly established. National interest called now for canals, roads, railroads, and the development of the soil and its mineral wealth. The accurate mapping of rivers, the deepening of their channels, the constructing of lighthouses and beacon lights—these were needed to make communication easier. And the preliminary work of prospecting and surveying had to be done.

That the Academy graduates of this era were men who through force of character and training could assume leadership in the performance of these tasks was due largely to the genius of Colonel Sylvanus Thayer, Superintendent from 1817 to 1833. The "Father of the Military Academy" had one ideal before him: to produce men who would be trained and worthy leaders. He demanded of the cadets excellence of character and excellence of knowledge, the two integrating qualities of such leadership. But he knew that to achieve his ideal he must master and guide the day-to-day routine of the Academy, and so it was that he let no detail of character training or discipline, of curriculum content, of textbooks, of teaching methods, of extracurricular activities, or of physical plant escape his attention.

Thayer grasped at once the need of the country for engineers and, therefore, made courses in civil engineering the core of the curriculum. Under his direction, instruction in that subject eventually included the properties, preparations, and use of materials for construction; the art of construction generally, including decorative architecture; the manner of laying and constructing roads; the construction of

bridges; the principles regulating the removal of obstructions impeding river navigation; the survey, location, and construction of canals and railroads; and the formation of artificial and the improvement of natural harbors.

A list of the Academy's achievements in the field of civil engineering that can be attributed to the farseeing genius of Thayer would include trigonometrical and topographical surveying; methods of triangulation; magnetic declination; and the systems used in locating, surveying, and dividing the public lands of the United States. Francis Wayland, the president of Brown University from 1827 to 1855, said in 1850 in a report to the Corporation of Brown University that West Point graduates did "more to build up the system of internal improvement in the United States than [the graduates of] all other colleges combined."

To provide objective criticism of his work, Thayer had the aid of a Board of Visitors. A regulation for the Government of the Military Academy, approved by Secretary of War William H. Crawford on 1 July 1815, provided for the appointment of such a Board to consist of five "competent gentlemen," with the Superintendent as President, who should attend at each of the annual and semiannual examinations and report thereon to the Secretary. This excellent custom of having a Board of Visitors has lasted to the present day. From the beginning their criticism was pertinent and helpful; nor is this surprising when the long list of those who have been members is scanned, for thereon appear the names of men like Edward Everett, George Bancroft, George Ticknor, Horace Mann, and Daniel Coit Gilman. Thayer knew the value of the intelligent lay point of view and welcomed the Board's comments on his curricular shift to civil engineering, his innovations in educational method, and his system in general.

His innovations in educational methods insured that the cadets not only learned but retained their subjects. Basically, he demanded that the cadets develop habits of mental discipline and maintain standards of scholarship that have grown in importance the more they have been tested through the years. He emphasized habits of regular study, and he laid down the rule that every cadet had to pass every course—any deficiency had to be made up within a specified time or the cadet would be dropped. To carry out these rigorous standards he limited the classroom sections to from 10 to 14 members; he rated these sections in order of merit and directed that cadets be transferred from one to the other as their averages rose or fell.

These methods and standards of Thayer's system are still used at the Academy, and Thayer's insistence on leadership integrated by excellence of character and excellence of knowledge has been the

cornerstone of the Academy's training since his day. Emerson, visiting West Point in 1863, spoke of the "air of probity, of veracity, and of loyalty" the cadets had; and when in 1898 the present coat of arms was adopted, the motto thereon of "Duty, Honor, Country" was but a later generation's attempt to put Thayer's ideal into words.

To the casual student it might seem that until about 1860 West Point was filling the almost dual roles of national military academy and of national school of civil engineering. But despite the curricular emphasis on civil engineering and the renown of her graduates in that field, the Academy never forgot her deepest and most abiding obligation to the Nation: to send forth graduates trained in the art and science of war. That the obligation was fulfilled is attested for these early years by the records of the Mexican and Civil Wars. The record of the Mexican War is told best in the words of Gen. Winfield Scott:

> I give it as my fixed opinion, that but for our graduated cadets, the war between the United States and Mexico might, and probably would, have lasted some four or five years, with, in its first half, more defeats than victories falling to our share; whereas, in less than two campaigns we conquered a great country and a peace, without the loss of a single battle or skirmish.

The record of the Civil War shows that the Confederacy used graduates whenever and wherever possible; the Union, in the beginning, used "political" generals. Defeat after defeat proved the need for professionally trained officers, and, in the last year of the war, all senior commanders of the Union armies were Academy graduates. Grant, Lee, Sheridan, Jackson, to name but a few on both sides, were all from West Point.

After the Civil War, changing conditions necessitated a shift in the Academy's curriculum away from the emphasis on civil engineering. The first Morrill Land-Grant Act of 1862, granting Federal land to each state "for endowment, support, and maintenance of at least one college where . . . military tactics . . . [and] . . . such branches of learning as are related to agriculture and the mechanic arts [shall be taught], enabled American education to be enormously expanded. New technical and engineering schools, supplementing those that had been founded in the second quarter of the nineteenth century, made it possible for West Point to drop its strong emphasis on engineering subjects. But even had these new schools not come into being, the Academy would have found it impossible to keep on producing both adequately trained Army officers and adequately trained engineers. The tremendous expansion of the body of scientific knowledge during these years—the last half of the nineteenth century—was enforcing specialization in all technical fields. And since the science of war

also expanded greatly it became obvious that the Army officer would need specialization in his particular branch of service.

The Academy met these changed conditions by severing its direct relationship with the Corps of Engineers; from 1866 on it was no longer mandatory that the Superintendent be a member of that Corps. To take care of officer-specialization demand, several Army post-graduate schools were set up, and West Point gradually came to be looked on as only the initial step in the Army officer's education. As the Academy approached its centennial, the military objective of the curriculum came to be the giving of general instruction in the elements of each military branch.

After its centennial in 1902, the Academy underwent a thorough-going structural renovation and became known as the New West Point. Coincident with this reconstruction, Gen. Albert L. Mills, the Superintendent, had the entire curriculum, military and academic, reassessed. As a result, military instruction was transformed from a series of mechanical drills to practical training in minor tactics and field work. Complete correlation was developed between instruction and actual field conditions. One of Mills' special hobbies was English; he believed that the Army officer should be able to express himself clearly in speech and writing. To that end, he strengthened greatly the course in English. A gradual liberalization of the curriculum went on until the outbreak of World War I.

World War I tested and proved, as never before, the soundness of the Academy's curriculum and training. Although in order to meet the sudden and great demand for trained officers the course was shortened and a number of classes graduated early, the qualities and abilities of the graduates remained high.

After the close of the war, the Academy's further development was placed in the hands of General Douglas MacArthur, who became Superintendent on 12 June 1919. General MacArthur's primary concern was an adaptation of the curriculum in terms of the recent war. It was known, for instance, that the concept of total war, new in military history, required cadets to have a knowledge of national production, transportation, and social problems; that something of the new developments in weapons and tactics had to be incorporated into cadet instruction; and that shortcomings in the officers' physical development, seen clearly in the stress of battle, made a longer and more vigorous physical training program necessary. But at the same time it was realized that the tremendous advances in the art and science of war, made under the pressure of actual conflict, presaged further development of Army post graduate schools and hence a growing emphasis upon a more broadly conceived basic curriculum

at West Point. The belief was reached that the Academy would serve best by giving the cadets a combination of general and technical education, in this way providing a solid foundation for a professional military career.

The part of the curriculum General MacArthur changed with the greatest vigor was that relating to physical education. He believed firmly that physical fitness was a basic requirement of an officer, and he planned a strenuous program of compulsory gymnastic instruction complemented by an intramural program of 14 sports in which every cadet had to take part. The wisdom of his foresight has been reflected ever since in the excellent physical condition of all cadets at all times.

Soon after General MacArthur's incumbency the policy of a liberal as well as a technical education got renewed emphasis by the introduction of a course in economics and government under the Professor of English and History. In 1926 the Department of English and History was reorganized into the Department of Economics, Government, and History, and a separate Department of English was established. In succeeding years curricular reforms took place in modern languages, natural philosophy, and mathematics.

All phases of training were greatly intensified during the rearmament years, 1939–41, and the excellence of the curriculum and the methodology of the Academy was clearly demonstrated by the performance of its graduates in World War II.

"But much was learned from World War II and Korea. A series of studies and reviews by distinguished educators and military leaders led to revised concepts of what professional military education should mean. A comprehensive analysis conducted from 1956 to 1960 of the entire curriculum and training program resulted in increased emphasis on modern technological advances and the increasingly complex aspects of national security and international relations. Related courses have been coordinated to bring their direction and emphasis into common focus. Because of the increased technological character of the weapons and techniques of war, the coverage of chemistry, nuclear physics, electronics and basic astronautics has been increased. Similarly, the assignment of officers early in their service to friendly foreign countries in military assistant advisory capacities and the greatly increased participation of officers later in their careers in international and national agencies concerned with national security policies has led to improved coverage of geography, history, government, economics, and ideologies of countries throughout the world. In order to challenge each cadet and to enable him to proceed as rapidly as his capabilities permit, the number and scope of advanced courses were expanded, and in order to

capitalize on the aptitudes and interests of individual cadets, an elective program was introduced." The comprehensive analysis of the curriculum from 1956 to 1960 resulted in two academic programs: the Standard Program and the Advanced Studies Program. The Standard Program is the basic minimum academic course required for graduation and the award of the Bachelor of Science Degree. In the Spring term of 1961, it consisted of a prescribed core curriculum plus two electives which every cadet chose and pursued in his last year. Since the Academic Year 1963–1964, each cadet may choose four electives during his last two years at the Academy. The Advanced Studies Program contains advanced, augmented, and more sophisticated versions of the standard courses, plus additional electives. A cadet can progress to the Advanced Studies Program in two ways: he may be validated for a standard course which he completed at another school prior to entering the Academy and take in lieu thereof a course in the Advanced Studies Program; or he can take, on the basis of demonstrated excellence at the Academy, an advanced or augmented version of a required standard course.

Beginning with the Class of 1965, the top 5% of the class may elect to take graduate schooling within five years after graduation, with an unlimited pick of school and field of study. The other graduates must take their chances to be picked for graduate schooling, in the school that will accept them, in their field of study, and in the time of such study.

"The academic and military training program is a vital, everchanging one that is continuously examined and adjusted to the changing times, and yet the Academy builds always on the cornerstone of the Thayer system: leadership integrated by excellence of character and excellence of knowledge."

Sylvanus Thayer, Superintendent from 1817 to 1833 and "Father of the Military Academy," was elected to the Hall of Fame for Great Americans, located at New York University, in October 1965. His bust and tablet were unveiled in the auditorium of the Library of New York University on May 15, 1966.

Academic Programs

MISSION

To provide a broad collegiate education leading to the Bachelor of Science degree.

To build an academic foundation for future graduate study.

To stimulate and challenge intellectual curiosity and individual talents.

To develop powers of analysis, reasoning, and expression.

To contribute to the building of character.

	Page
Academic Calendar	*III*
Academic Board	*12*
Educational Philosophy	*14*
General Programs	*15*
Standard and Advanced Programs	*17*
Electives	*19*
Academic Departments	*21*
Academic Computer Center	*70*
Library	*84*

THE ACADEMIC BOARD

The Academic Board establishes standards and procedures for admission, readmission, advanced placement, validation, academic proficiency, advancement from class to class, graduation, and the granting of diplomas and commissions. The Board recommends separation of cadets for deficiency in academic studies, in conduct, in physical education, and in aptitude for the service. The Board approves courses of instruction, methods of instruction, schedules of instruction, and changes in institutional facilities.

Superintendent, and President of the Board:
Maj. Gen. Donald V. Bennett, USA; B.S.

Dean of the Board:
Brig. Gen. John R. Jannarone, USA; B.S., M.S., C.E.

Commandant of Cadets and Head of the Department of Tactics:
Brig. Gen. Richard P. Scott, USA; B.S., M.A.

Professor and Head of the Department of—

Chemistry:
Col. Donald G. MacWilliams, USA; B.S., M.S., Ph.D.

Earth, Space, and Graphic Sciences:
Col. Charles R. Broshous, USA; B.S., M.S.

Electricity:
Col. Elliott C. Cutler, Jr., USA; B.S., M.S., Ph.D.

English:
Col. Edwin V. Sutherland, USA; B.S., M.A., Ph.D.

Foreign Languages:
Col. Walter J. Renfroe, Jr., USA; B.S., M.A., Ph.D.

Law:
Col. Frederick C. Lough, USA; B.S., LL.B.

Mathematics:
Col. Charles P. Nicholas, USA; B.S.

Mechanics:
Col. Elvin R. Heiberg, USA; B.S., C.E.

Military Art and Engineering:
Col. Charles H. Schilling, USA; B.S., M.S., Ph.D.

Military Hygiene:
Col. John H. Voegtly, B.S., M.D.

Ordnance:
Col. John D. Billingsley, USA; B.S., B.S. in M.E., M.B.A.

Physics:
Col. Edward A. Saunders, USA; B.S., M.S.E.E., Ph.D.

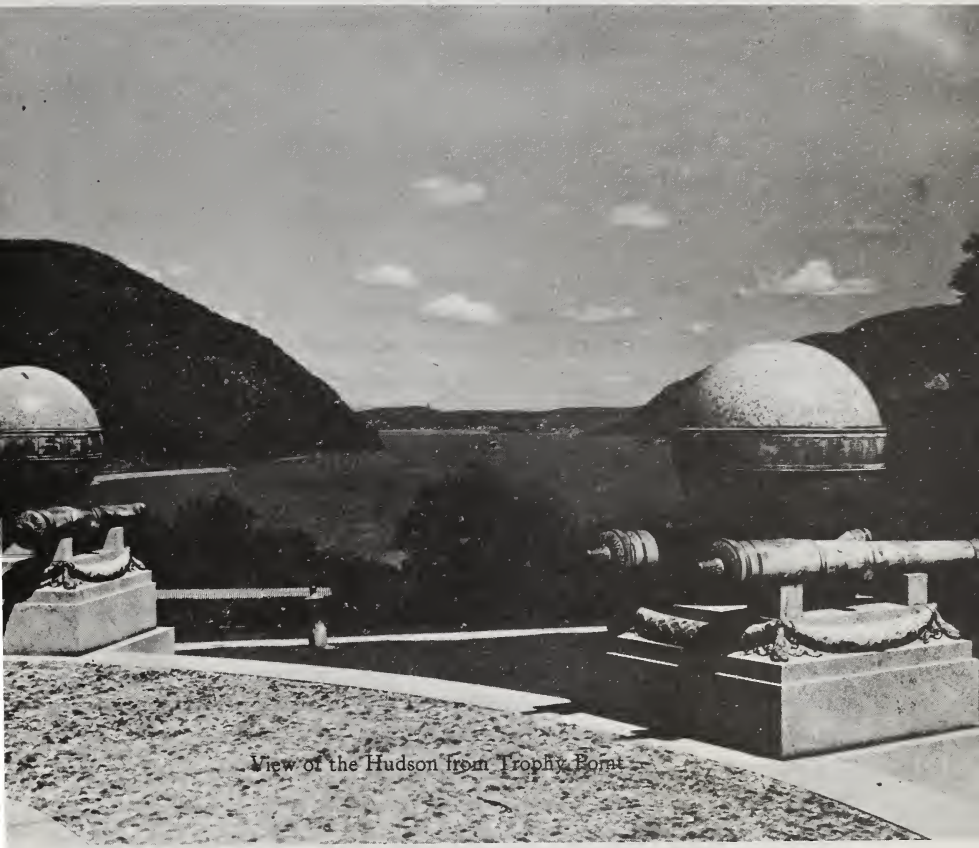
Social Sciences:
Col. George A. Lincoln, USA; B.S., B.A., M.A. (Oxon).

Director of Admissions and Registrar, Secretary to the Board:
Col. Robert S. Day, USA; B.S., B.S. in Ch.E., M.S.

Consultants to the Academic Board:

James P. Baxter III, Ph.D., Litt.D., LL.D., President Emeritus, Williams College.

Carl Richard Soderberg, Tekn. D., D.Eng., Institute Professor Emeritus; Professor of Mechanical Engineering, Emeritus; Dean of Engineering, Emeritus, Massachusetts Institute of Technology.



View of the Hudson from Trophy Point

THE EDUCATIONAL PHILOSOPHY OF THE UNITED STATES MILITARY ACADEMY

The United States Military Academy prepares selected young men for service to their country as professional officers of the United States Army. Since it is the only institution of higher learning with this specific mission, its philosophy of education is unique. The Military Academy must produce enlightened military leaders of strong moral fiber whose minds are creative, critical, and resourceful. The academic curriculum and military training encourage logical analysis, clear and concise expression of considered views, and independent thought and action along with a readiness, developed within the framework of military discipline, to carry out orders without reservation once a decision has been reached.

The total curriculum is designed to develop those qualities of character, intellect, and physical competence needed by the officer who is prepared to lead the smallest combat unit or to advise the highest governmental council. The program includes the sciences, the humanities, and military and physical training. It forms a basis both for graduate education and for further professional development.

In the academic curriculum, standard courses provide the essential core of knowledge of mathematics, science, engineering, the social sciences, and the humanities and an understanding of the application of this knowledge to the solution of problems. Advanced and elective courses afford the opportunity to develop intellectual capacities and to concentrate in areas of particular interest.

Military training provides the requisite knowledge of professional fundamentals and doctrine and of the basic military skills. Service in positions of responsibility in the Corps of Cadets and participation in intensive summer training provide the opportunity to apply and test principles and to learn techniques by practice and observation.

Fitness for military leadership requires physical strength, agility, stamina, and a competitive spirit. These are acquired from a comprehensive course in physical education and from participation in intramural and intercollegiate sports.

The increasing complexity of the world scene requires constant adaptation by the military profession and by the institutions which prepare its leaders. But while adapting itself to the changing world, the Academy must continue to emphasize the devotion to Duty, Honor, and Country which has traditionally been the hallmark of its graduates.

GENERAL PROGRAMS

Bachelor of Science Program

The Military Academy is accredited by the Middle States Association of Colleges and Secondary Schools. Its academic program provides the student with a broad foundation in the humanities, the social sciences, the physical and engineering sciences, and the military sciences. Graduates of the Academy are accepted for advanced study by the leading graduate schools of the country.

Standard Academic Program

The Standard Academic Program consists of the prescribed courses which fulfill the minimum requirements for graduation. Each cadet must satisfactorily complete each of these courses, unless, on the basis of previously completed college level work or demonstrated ability, he is qualified for enrollment in the Advanced Studies Program.

Advanced Studies Program

The Advanced Studies Program comprises the programs pursued by cadets who validate standard courses or who are capable of taking courses of a more advanced nature. It is designed to recognize and to give credit for previous academic achievement and to permit the cadet to penetrate more deeply into one subject area or to pursue a broader field of study than is required by the Standard Academic Program.

Validations

A cadet who has satisfactorily completed appropriate college-level work before entering the Academy, or who has acquired sufficient knowledge of the subject matter through self-study, may validate standard courses. Normally he must successfully complete validation examinations administered at the Academy by the departments concerned. In addition, candidates are encouraged to submit for validation consideration College Entrance Examination Board Advanced Placement test results. *For each course validated, a cadet will take the next sequential standard course or an appropriate elective course.* A cadet who has appreciable prior knowledge of the subject matter, although not sufficient for validation, or who demonstrates unusual ability, may be enrolled in an advanced course. Advanced courses normally cover the subject matter of the corresponding standard course but include subject matter which is significantly broader or deeper in scope. *From the foregoing it should be apparent that there is a great opportunity for advanced study for those candidates who have, for varying reasons, attended college before entering the Academy. It is important for such a candidate not only to complete the term in which he*

is enrolled, but also to do as well as possible during the terms he attends college so that he may participate in the validation program to the maximum extent. Furthermore, if the candidate is attending college before entering the Academy, he should select very carefully a program of studies which approximates that of the Academy and thus be better assured of validating courses at the Academy.

Elective Courses

Elective courses are those courses a cadet selects at designated stages in the curriculum. At present, each cadet taking the Standard Academic Program will select and pursue four elective courses during his final two years at the Academy. Cadets who validate standard courses will, at some time between validation and graduation, take additional elective courses in lieu of the validated courses. With approval, cadets of the upper classes may take elective courses in addition to their normal course loads. The elective courses offered are listed in the following pages.

Honors Courses

For a select few cadets, Honors Courses are offered in the First Class year.

Listing of Courses

Standard, advanced, and elective courses are shown by departments. Courses for the Fourth Class are numbered in the 100's; courses for the Third Class in the 200's; courses for the Second Class in the 300's; and courses for the First Class in the 400's. Advanced and elective courses are indicated by the second digit, 5 and 8, respectively. For standard and advanced courses the third digit indicates the term in which the course is offered; odd digit for first term, even digit for second term. Elective courses may be offered in either or both terms as indicated in the course description. Credit hours are computed generally on the basis of actual number of hours of classroom instruction per week.

Methods of Instruction

Cadets attend classes in small sections of from 12 to 15 students so that emphasis may be placed on daily student participation. Cadets are normally assigned to sections on the basis of their demonstrated ability in each subject. The resulting homogeneous grouping enables the instructor to pace his teaching to the capability of the student. Thus the cadet is intellectually challenged and the maximum of learning can take place at all levels. Cadets are resectioned periodically. Weekly posting of grades contributes much to the development of a competitive spirit in academics among cadets. Periodic reports of each cadet's academic progress are provided to parents.

Courses in the Standard Academic Program	Courses in the Advanced Academic Program
4th Class (Freshman)	
Engineering Fundamentals	Advanced Engineering Fundamentals
Communication Skills: Logic and English Exposition	Evolution of American Ideals (1607–1860)
	Evolution of American Ideals (1860–the Present)
Foreign Language	Accelerated French, German, or Spanish
	Advanced French, German, Russian or Spanish
Environment	Advanced Environment
Calculus and Analysis, Linear Algebra	Advanced Programs I, II, or III
3d Class (Sophomore)	
General Chemistry	Advanced General Chemistry with Analysis
Comparative Literature	*Elective
Foreign Language	Accelerated French, German or Spanish
	Advanced French, German, Russian or Spanish
History of Europe and America: 1500 to 1870	*Elective
History of Europe and America Since 1870	*Elective
Calculus, Differential Equations Probability Theory and Statistical Inference	Advanced Programs I, II, or III
Physics I	Advanced Physics I
Physics II	Advanced Physics II
General Psychology	*Elective
2d Class (Junior)	
Physics III	Advanced Physics III
United States Government	*Elective
Economic Principles and Problems	*Elective
Electric Circuits	*Elective
Electronics	*Elective
Legal Philosophy and Basic Principles of Law, Legal Methods of Proof	*Elective
Constitutional Law, Military Law	*Elective
Fluid Mechanics	Advanced Fluid Mechanics
Engineering Mechanics	Advanced Engineering Mechanics
Thermodynamics	Advanced Thermodynamics
Electives (2)	

See footnote on next page.

Courses in the Standard Academic Program	Courses in the Advanced Academic Program
1st Class (Senior)	
Structural Analysis	Honors Course in Civil Engineering
Structural Design and Field Engineering *or* Introduction to Nuclear Engineering	Honors Course in Civil Engineering
Comparative Political Systems: Europe and Asia	Comparative Political Systems: Europe and Asia; Advanced—China
International Relations	*Elective
History of the Military Art	*Elective
Literature and Advanced Exposition	*Elective
Ordnance Engineering	Honors Course in Ordnance Engineering
Military Leadership	

ELECTIVE PROGRAMS

Twenty elective programs are presented to assist those cadets who have a definite interest in one of the subject areas. Cadets interested in one of the programs may select four or more elective courses from that program.

Chemistry	History
Civil Engineering	International Affairs
Economics	Literature
Electrical Engineering	Management
Engineering Science	Mathematics
Foreign Language, French	Military Studies
Foreign Language, German	Nuclear Engineering
Foreign Language, Portuguese	Physics
Foreign Language, Russian	Political Science
Foreign Language, Spanish	Weapons Systems, Engineering

*Cadets who validate the standard course subjects are eligible to choose an elective.

BASIC SCIENCES

Linear Algebra and Linear Programming
Abstract Algebra
Advanced Calculus I
Differential Equations (Intermediate)
Advanced Calculus II (Complex Variable)
Numerical Analysis with Digital Computation
Real Variable Theory
Physical Chemistry I
Physical Chemistry II
Organic Chemistry I
Organic Chemistry II
Chemistry Research Project
Introduction to Theoretical Physics I
Introduction to Theoretical Physics II
Quantum Mechanics
Experimental Physics
Nuclear Physics

APPLIED SCIENCE AND ENGINEERING

Computer Science Fundamentals
Principles of Surveying
Space Sciences
Electromechanical Energy Conversion
Electromagnetic Fields and Advanced Circuits
Electronic Circuits
Digital Computers
Information Transmission
Solid State Electronics
Automatic Control Systems
Mechanics of Materials
Advanced Mechanics of Materials
Gas Dynamics
Heat, Mass and Momentum Transfer
Space Mechanics
Continuum Mechanics
Mechanical Vibrations
Soil Mechanics
Design of Concrete Structures
Advanced Structural Analysis
Individual Engineering Project
Management Engineering
Automotive Engineering
Individual Ordnance Project
Engineering Materials
Operations Research
Nuclear Reactor Theory

LANGUAGE AND LITERATURE

The Novel
Shakespeare
Contemporary Literature
American Literature of the 19th Century
English Literature from the Beginning to 1660
English Literature from 1660 to 1900
Expositors of 18th and 19th Century American Thought
Modern American Criticism: 20th Century Attitudes Reflected in American Prose
Basic Mandarin Chinese
Basic Mandarin Chinese
Intermediate Mandarin Chinese
Intermediate Mandarin Chinese
French Language through Literature
Military and Scientific Readings in French
Civilization and Literature of France
Civilization and Literature of France
Survey of French Literature
Survey of French Literature
German Language through Literature
Military and Scientific Readings in German
History of German Civilization
Contemporary Germany
German Literary Masterpieces
Modern German Literature
Portuguese Language through Literature
Portuguese Language through Literature
Individual Reading and Research Projects in Portuguese
Individual Reading and Research Projects in Portuguese
Russian Language through Literature
Russian Language through Literature
Military and Scientific Readings in Russian
Russian Civilization
Spanish Language through Literature
Spanish Language through Literature
Contemporary Hispanic-American Literature
Contemporary Hispanic-American Literature
Survey of Spanish Literature
Survey of Spanish Literature

NATIONAL SECURITY & PUBLIC AFFAIRS

Geography of the USSR
Regional Geography of the U.S.
International Law
Revolutionary Warfare
Evolution of Modern Warfare (1400–1900)
Twentieth Century Warfare (1900—the Present)
History of Russia
History of U.S. Foreign Relations
Middle Eastern Studies
Latin American Studies
Comparative Economic Systems
Political Philosophy
Seminar in Public Policy
Seminar in History
Applied Economic Theory and Defense Economics
National Security Problems
Problems of the Developing Nations
Seminar in Public Policy (Honors—Research)
Managerial Psychology
Sociology: Society and Culture
American Military Institutions and Manpower
Independent Behavioral Science Studies

THE ACADEMIC DEPARTMENTS

OFFICE OF THE DEAN

Dean:	Brig. Gen. John R. Jannarone
Associate Dean:	Lt. Col. Manley E. Rogers
Assistants to the Dean:	
Operations:	Lt. Col. J. W. Mastin
	Lt. Col. A. H. Blair
	Maj. F. J. McConville
Computer Science:	Lt. Col. W. F. Luebbert
Administration:	Mrs. J. M. Micksin

DEPARTMENT OF CHEMISTRY

Professor: COL D. G. MacWilliams (Head of Department).

Associate Professors: LTC W. J. Hoff, Jr., MAJ G. W. Chancellor.

Assistant Professors: MAJs J. F. Calvert, E. J. Downing, L. H. Hunt, R. D. Kittelson, M. L. Miller, R. H. Miller; CPT L. R. Martin.

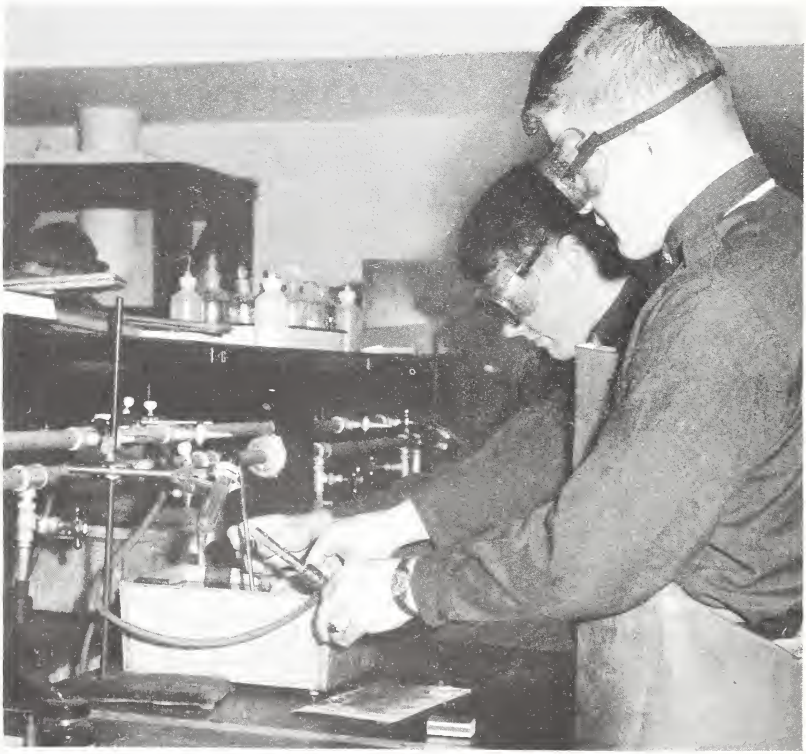
Instructors: MAJs J. L. E. Hill, J. H. Ramsden, K. R. Simila, J. C. Wilkinson; CPTs R. C. Baldwin, G. R. Jilbert, K. I. Kawano, R. G. Rose; LT O. L. Carter.

Standard Course

CH 201–202. GENERAL CHEMISTRY

Prerequisite: None.

A two-semester course in general college chemistry with particular emphasis on the fundamental concepts, principles, theories and laws of chemistry, to include an introduction to organic chemistry and nuclear chemistry. Integrated laboratory program includes practical exercises illustrating fundamental chemical theory discussed in the classroom and an introduction to qualitative analysis. Experiments stress investigative techniques, observation and interpretation of data, and the drawing of conclusions from these data. *8 Credit Hours (4 each term).*



Advanced Course

CH 251–252. ADVANCED GENERAL CHEMISTRY WITH ANALYSIS

Prerequisite: None.

A rigorous treatment of the fundamental principles of modern chemistry. Topics covered include elementary quantum theory, atomic structure, the chemical bond, gases, crystal structure, solutions, elementary thermodynamics, kinetics, equilibrium, descriptive chemistry of the elements, electrochemistry, complex ions, elements of organic and nuclear chemistry. Integrated laboratory program includes experiments of a quantitative nature which illustrate the fundamental concepts of chemistry and a series of semi-micro qualitative analysis exercises stressing equilibrium principles and solution chemistry of various elements. *8 Credit Hours (4 each term).*

Electives

CH 481. PHYSICAL CHEMISTRY I (First Term)

Prerequisite: CH 202 or CH 252, or validation thereof.

A course relating certain theoretical aspects to the laws of chemical interaction. The topics include the gaseous phase, kinetic theory, chemical thermodynamics and chemical equilibrium, changes of state, the liquid phase and homogeneous solutions. Selected experiments using precision measurements illustrate the ideal gas law, liquid properties, thermochemistry, equilibrium and colligative properties. The laboratory program makes extensive use of digital computers for automatic data reduction and error analysis. *2.5 Credit Hours.*

CH 482. PHYSICAL CHEMISTRY II (Second Term)

A continuation of CH 481 including topics such as: the phase rule, conductance and ionic equilibria, electrochemistry, quantum chemistry and spectroscopy, and chemical kinetics. The laboratory program includes experiments which illustrate the fundamental topics through precision measurements, including the application of ultraviolet, visible and infrared spectrophotometry. *2.5 Credit Hours.*

CH 483. ORGANIC CHEMISTRY I (First Term)

Prerequisite: CH 202 or CH 252, or validation thereof.

A comprehensive study of the compounds of carbon and the reactions of these compounds. Latest theories of chemical bonding are presented and applied to the main classes of organic compounds. Emphasis is placed on the relationship between structures and chemical reactivity. The course includes standard topics in organic chemistry, such as: hydrocarbons, ethers, alcohols, aldehydes, ketones, stereochemistry, optical isomerism and reaction mechanisms. Laboratory program includes application of modern instrumentation, typical reactions of functional groups, and syntheses. *4 Credit Hours.*

CH 484. ORGANIC CHEMISTRY II (Second Term)

Prerequisite: CH 483.

A continuation of CH 483 covering additional standard topics in organic chemistry, to include: aromatic, heterocyclic and polyfunctional compounds; proteins, carbohydrates, lipids and polymerization. Laboratory includes an introduction to qualitative organic analysis. *4 Credit Hours.*

CH 489. CHEMISTRY RESEARCH PROJECT (Either Term)
Prerequisites: CH 481–482 and CH 483–484.

Individually supervised research in a selected problem area. Research projects are approved by the Department and require the cadet to outline his approach, determine necessary laboratory equipment and evolve the techniques and procedures required. The project is completed by the writing of a research paper. *2.5 Credit Hours.*

DEPARTMENT OF EARTH, SPACE AND GRAPHIC SCIENCES

Professor: COL C. R. Broshous (Head of Department), LTC G. W. Kirby, Jr.

Associate Professors: LTCs W. B. Rogers, W. C. Smith, J. E. Fox.

Assistant Professors: LTCs K. R. Ebner, A. L. Erickson, J. B. Garver, M.E. Kallman; MAJs J. M. Davis, Jr., G. Z. Demers, T. P. Graham, L. R. Hayden, Jr., H. J. Hubbard, III, D. A. Hufnagel, J. R. Jenkins, J. H. Jones, R. E. Littlefield, D. W. Reeves, R. L. Reynard, L. B. Rodenberg, Jr., L. G. Smith, M. E. Schoonmaker, J. E. Sobraske, R. L. Stone, G. D. Tebben, N. S. Williamson, III, E. K. Wintz, A. C. Biggerstaff; CPT T. F. Plummer.

Instructors: MAJs A. G. Boivin, J. B. Cooper, L. E. Hammond, G. B. Rogers, Jr., R. E. Wallace; CPTs L. Allen, J. R. Harrell, W. V. Harris, Jr., L. K. Moraski, A. G. Pokorny, Jr., C. C. Thudium, Jr., D. I. Walter.

Standard Courses

EF 101–102. ENGINEERING FUNDAMENTALS

Introduction to the Digital Computer. Programming for and operation of the General Electric 225 Digital Computer utilizing a pseudo-machine language and FORTRAN II.

Graphical Techniques. Signal-stroke gothic lettering, technical sketching, use of the drawing instruments, and a brief introduction to graphs, diagrams, and graphic training aids.

Graphical Representation. The theory of projection, orthographic, isometric, oblique, and perspective projection; the spatial relationship of points, lines, and planes, and working drawings. Includes a brief introduction to basic mechanical elements, conventions, basic dimensioning, and limit dimensions followed by a simple design project.

Graphical Calculations. Basic principles of vector geometry, nomography, and graphical calculus with limited applications.

Earth Measurements. A brief familiarization with the measurement of horizontal and vertical distances and horizontal and vertical angles at or near the surface of the earth. The instruments used and the need for accurately determining these measurements. Includes a brief introduction to mapping and the theory of errors and measurements. *5 Credit Hours.*

EV 101–102. ENVIRONMENT

Physical Geography. Descriptive study of a number of earth sciences which gives a general insight into the nature of man's environment and provides a sound physical basis for later work in world geography. Included are introductions to geomorphology, geology, hydrology, meteorology, climatology, pedology, and physical oceanography. Map studies are emphasized throughout.

World Geography. An introductory study of man's activities in response to his physical environment. This course initially examines basic concepts of geography and geographic methods of analysis using and reinforcing the knowledge previously gained in Physical Geography.

The major geographic regions of the world are then examined and specific political units within each region are studied in detail to reveal man's economic and social activities.

Astronomy-Astronautics. Emphasis is placed on the physical characteristics of the bodies in the solar system and the nature of their relative motions. Included as the basis for this investigation are the elements of electromagnetic radiation and celestial mechanics. A study of the physical characteristics and motions of stars constitutes the primary line of investigation beyond the solar system. Astronautics is incorporated into the course with a brief study of current United States' space programs. *5 Credit Hours.*

Advanced Courses

EF 151–152. ADVANCED ENGINEERING FUNDAMENTALS

Prerequisite: One year of engineering graphics in a recognized engineering college or equivalent, and demonstration of a satisfactory degree of proficiency in engineering graphics by passing a special validation examination. Offered in lieu of Engineering Fundamentals 101–102.

Advanced Engineering Fundamentals is a rigorous course going beyond the usual freshman level to consider in depth descriptive geometry, vector geometry, graphical calculus, and nomography. Brief introductions to graphical arithmetic and algebra, empirical equations, and harmonics and Fourier Series are included. A team project in which a practical engineering problem is investigated and graphical solutions presented, concludes the graphics portion of the course. Basic programming for the GE 225 Digital Computer and earth measurements receive a coverage comparable with EF 101–102. *5 Credit Hours.*

EV 151–152. ADVANCED ENVIRONMENT

Prerequisite: A strong high school or college record of World Geography and satisfactory performance on a validating examination in World Geography.

Physical Geography. (Same as for EV 101–102.)

Astronomy-Astronautics. (Same as for EV 101–102.)

Geography of the USSR. This course seeks to provide the student with an understanding of the distribution of the physical, cultural and economic elements of the USSR. The physical aspects, i. e., the landforms, mountain systems, drainage patterns and climate, are first studied. Cultural geography, the peoples

and nationalities of the Soviet Union, is then surveyed. Economic geography follows with a survey of agriculture, national resources and industrial development. Finally, a survey of each of the major geographic regions is made. *5 Credit Hours.*

EV 153–154 ADVANCED ENVIRONMENT

Prerequisite: A strong high school or college record of World Geography and satisfactory performance on a validating examination in World Geography.

Physical Geography. (Same as for EV 101–102.)

Astronomy-Astronautics. (Same as for EV 101–102.)

Geography of Latin America. This course is designed to familiarize the cadet with the geography of Latin America. The initial lessons are concerned with the physical features of the topography to include landforms, climate, vegetation soils, and drainage patterns. The culture of each Latin American country is then examined within this physical framework in an effort to better understand the contemporary activities and problems. *5 Credit Hours.*

Elective Courses

EF 382. COMPUTER SCIENCE FUNDAMENTALS (*Either Term*)

Prerequisites: Open to all 1st and 2d Classmen and to 3d Classmen who stand in the top $\frac{1}{3}$ in Math.

This course provides the cadet who already possesses a minimum basic familiarity with the use of digital computers a comprehensive introduction to the computer science field. Special attention is directed to military and business-oriented computer applications, math-science-engineering computer applications, systems analysis techniques, computer aided decision making and data processing methods. *2.5 Credit Hours.*

EF 384. PRINCIPLES OF SURVEYING (*Second Term*)

Prerequisite: EF 101–102 (or 151–152.)

This course provides a foundation in the principles of surveying in sufficient depth to permit application to military mapping, construction surveying, artillery firing, optical tooling, and forms a basis for further study in related engineering fields. Course includes a familiarization with the instruments and equipment used in modern civil and military surveying and the theoretical concepts of measurements, probability, and errors, celestial observations, tachymetry, and photogrammetry. *2.5 Credit Hours.*

EV 381. GEOGRAPHY OF THE USSR (*First Term*)

Prerequisites: Open to all cadets who have completed EV 101–102.

This course covers the demographic, physiographic, climatic, agricultural, industrial, transportation, and mineral resource patterns of the USSR. Geographic factors—cultural, economics, and physical—are related to the human activity in agriculture and industry. The knowledge gained by the cadet will contribute to the foundation required for assessing USSR capabilities. *2.5 Credit Hours.*

EV 383 SPACE SCIENCE (*First Term*)

Prerequisites: 1st or 2d Classmen in upper two-thirds of class in third class mathematics and physics. Open to other cadets with consent of instructor.

This course includes familiarization with geophysics and astrophysics, a detailed examination of the solar system, and an examination of selected topics related to the study of the universe as a whole. It is both descriptive and analytical.

Physics and calculus are used whenever they can effectively contribute to a better understanding of the lesson objective. *2.5 Credit Hours.*

EV 384. REGIONAL GEOGRAPHY OF THE UNITED STATES (*Second Term*)
Prerequisite: EV 101–102.

Regional analysis of the major economic subdivisions of the United States. Study of how demographic, physiographic, climatic, resource, and cultural factors have contributed to existing industrial, agricultural and transportation patterns. The understanding thus gained of the industrial, agricultural and resource bases of our nation will serve the cadet as a standard of comparison in the analysis of any other nation or region of the world. *2.5 Credit Hours.*

DEPARTMENT OF ELECTRICITY

Professor: COL E. C. Cutler, Jr. (Head of Department).

Associate Professors: LTCs S. E. Reinhart, Jr., R. B. Andreen.

Assistant Professors: MAJs D. K. Blackham, T. E. Olson, J. J. P. Meehan, W. I. Brownfield.

Instructors: MAJs H. G. Graham, M. L. Moore, N. B. Penrose; CPTs C. J. Zabriskie, J. F. Campbell, B. M. Carr, C. E. Endy, Jr., R. L. Leech, D. A. Herman, J. L. Geisinger, A. J. Downey, Jr., A. J. Berti.

Standard Courses

EL 301. ELECTRIC CIRCUITS (*First Term*)

Prerequisite: PH 202 and MA 202.

Charge, current, and voltage; Kirchhoff's Laws; complex phasor representation; sources, waveforms, and instruments; power; resistance; resistive networks and theorems; inductance and capacitance; natural and total response; reactance and impedance; resonance; AC network analysis; coupled circuits; magnetic circuits and transformers; laboratory work. *4 Credit Hours.*

EL 304. ELECTRONICS (*Second Term*)

Prerequisite: EL 301.

Concepts of electronic systems; signal representation; electronic circuit representation; analysis of tank circuits, piezoelectric crystals, and Butterworth filters; simple telephone systems; diode electronics; linear and nonlinear diode circuits; triode and transistor electronics, parameters, and graphical analysis; equivalent circuits; amplifiers; coupling, gain, and frequency response; feedback amplifiers; oscillators; modulation and detection; radio waves and antennas; transmitters and receivers; laboratory work. *4 Credit Hours.*

Elective Courses

EL 382. ELECTROMECHANICAL ENERGY CONVERSION (*Second Term*)

Prerequisite: EL 301.

Basic principle of electromechanical energy conversion; review of magnetic circuits; principle of virtual work and its application to rotating and translating devices; dc generators and motors; alternators; synchronous motors; induction motors; the general machine; constraints for ac and dc machines; the reluctance motor; the metadyne; introduction to feedback control systems; use of the LaPlace transform; laboratory work. *4 Credit Hours.*

EL 383. ELECTROMAGNETIC FIELDS AND ADVANCED CIRCUITS (*First Term*)

Prerequisites: PH 202 and MA 202.

Vector analysis; gradient, divergence, and curl; static electric and magnetic fields; Maxwell's hypothesis and equations; plane waves, reflection, and refraction; radiation and antennas; waveguides, ionospheric propagation and radar; laboratory work.

Signal representation in electrical and electronic systems; LaPlace transform; singularity functions; superposition and convolution; introduction to Fourier Series and transforms; frequency analysis and Bode diagrams; tank circuits and filters; coupled circuits; laboratory work. *4 Credit Hours.*

EL 481. ELECTRONIC CIRCUITS (*First Term*)

Prerequisite: EL 304.

Transistor circuits; biasing and stabilization; multielectrode tubes and semi-

conductors; LaPlace transform; response of amplifiers; coupling; compensation inductive coupling and tuning; classification of amplifiers; thermal conduction and runaway; complementary symmetry; feedback; oscillators; switches. 2.5 *Credit Hours.*

EL 483. DIGITAL COMPUTERS (*First Term*)

Prerequisite: EL 304.

Capabilities and limitations of digital computers; organization and operation; electrical construction; system design, planning, and applications. Extensive laboratory work including investigation of computer electronic circuits, and assembly of a portion of a specimen computer. Practical work on an actual digital computer involving operating techniques and programming methods. 2.5 *Credit Hours.*

EL 484. INFORMATION TRANSMISSION (*Second Term*)

Prerequisite: EL 304.

Basic concepts of random time functions; frequency and time domains, types of modulation, random signal theory; applications of probability theory and statistical inference; network analysis, elements of information theory; noise sources and noise figure; signal-to-noise ratio; applications to communications and radar systems. 2.5 *Credit Hours.*

EL 486. SOLID-STATE ELECTRONICS *(Second Term)*
Prerequisites: EL 304, and PH 305.

Band structure of semiconductors; density of states; Fermi level; mobility, lifetime, recombination, and trapping; diffusion and drift; space charge; high-field effects; optical behavior; surface properties and thin films; single-junction devices, including rectifiers, avalanche diodes, field-effect transistors, tunnel diodes, and photodiodes; transistors and multiple-junction devices; fabrication techniques; thin-film networks; integrated solid-state circuits. Laboratory work. *2.5 Credit Hours.*

EL 486. AUTOMATIC CONTROL SYSTEMS *(First Term)*
Prerequisite: EL 382.

The composition of linear servomechanisms; transfer functions; block diagrams; time and frequency domains; dynamic analysis of systems; Routh-Hurwitz criteria; Nyquist and Bode diagrams; Nichols charts; root-locus plots; performance criteria; steady-state errors; stability; stabilization and compensation. Laboratory work. *2.5 Credit Hours.*

DEPARTMENT OF ENGLISH

Professors: COL E. V. Sutherland (Head of Department), LTC J. L. Capps.

Associate Professor: LTC C. R. Kemble.

Assistant Professors: LTCs D. C. Ahearn, N. A. Spiro, J. W. Wensyel (Executive Officer); MAJs G. A. Bailey, H. B. Bynell, W. E. Haas, P. G. Jones, W. S. May, T. J. McAniff, J. T. Murchison, L. A. Spurlock.

Instructors: LTC W. L. McMahon; MAJs B. A. Arthur, B. B. Beasley, T. P. Garigan, H. H. Jordan, D. P. McLain, W. L. Pritchard, Jr., R. R. Stevens, Jr., P. L. Stromberg, C. W. Sullinger, A. A. Vardamis, D. R. Williams; CPTs F. J. Calverase, J. H. Coreth, S. J. Delikat, F. M. Franks, Jr., W. R. Good, J. H. Hafner, M. L. Plassmeyer, T. W. Simroe, R. E. Winters; LT W. W. Morgan.

Standard Courses

EN 101–102. COMMUNICATION SKILLS, LOGIC AND ENGLISH COMPOSITION

A standard first year course in effective communication. It consists of instruction in the logic and mechanics of expository expression and includes the critical evaluation of cadet writing and speech-making. During the course, the cadets are introduced to the principles of research and the forms of literature. *5 Credit Hours* (*2.5 each term*).

EN 201. COMPARATIVE LITERATURE

This course is a study of selections from the masterpieces of world literature. Among the writers studied are Homer, Plato, Dante, Shakespeare, Milton, Goethe, Yeats, Frost, and Eliot. The course emphasizes that literature treats generally (1) man's relationship with God, (2) man's relationship with his fellow man, and (3) man's relationship with nature. The cadet develops his skill in speaking through classroom analysis of the assigned reading; he develops his skill in writing through the preparation of formal papers which include a criticism of a novel and a research paper. *2.5 Credit Hours.*

EN 202. COMPARATIVE LITERATURE

This course, the same as EN 201, is offered during the second semester to qualified Fourth Classmen. *2.5 Credit Hours.*

EN 402. LITERATURE AND ADVANCED EXPOSITION

This course consists of readings in exposition, drama, and the novel, and advanced expository theme writing. The objectives are (1) to develop further the student's ability to write and speak effectively, and (2) to improve his skill in logical analysis and criticism. *2.5 Credit Hours.*

Advanced Courses

EN 151. THE EVOLUTION OF AMERICAN IDEALS AS REFLECTED IN AMERICAN LITERATURE, 1607–1860

The course is a study of the part played by American literature in the development of our national character. Among the writers studied are Taylor, Edwards, Franklin, Jefferson, Emerson, Thoreau, Hawthorne, Melville, and Poe. *2.5 Credit Hours.*

EN 152. THE EVOLUTION OF AMERICAN IDEALS AS REFLECTED IN AMERICAN LITERATURE, 1860–PRESENT

This course is a continuation of EN 151. Among the writers studied are

Whitman, Lincoln, Howells, James, Clemens, Crane, Benet, Frost, Eliot, O'Neill, Hemingway and Faulkner. *2.5 Credit Hours.*

Elective Courses

EN 381. INTRODUCTION TO MUSIC

Not a history of music, per se, this is a practical introduction upon which the cadet can expand his appreciation according to his own interests and talents. Elements of music, the creative process, musical texture and structure will be discussed. Representative composers and compositions from the sixteenth to twentieth centuries will be featured.

EN 382. INTRODUCTION TO FINE ARTS

Not a history of art, per se, this is a practical introduction upon which the cadet can expand his appreciation according to his own interests and talents. Definitions of art, the role of the artist in society, principal elements, and techniques will be discussed. Far Eastern and 14th to 20th century European and American artists and their works will be featured.

EN 481. THE NOVEL (*First Term*)

This course is a study of the development of the novel as a mode of literary expression. Approximately ten representative novels of America and Europe will be read. *2.5 Credit Hours.*

EN 482. SHAKESPEARE (*Second Term*)

This course is a study of selected plays and poems from Shakespeare. 2.5 *Credit Hours.*

EN 483. CONTEMPORARY LITERATURE (*First Term*)

This course is a study of major American and European writers between 1900 and the present. 2.5 *Credit Hours.*

EN 484. AMERICAN LITERATURE OF THE NINETEENTH CENTURY (*Second Term*)

This course examines the works of nine major nineteenth-century American authors: Emerson, Thoreau, Hawthorne, Melville, Poe, Mark Twain, Whitman, Dickinson, and James. 2.5 *Credit Hours.*

EN 485. ENGLISH LITERATURE FROM THE BEGINNINGS TO 1660 (*First Term*)

This course consists of a study of representative authors and trends from Old and Middle English to the Restoration. It will not be offered during Academic Year 1967–1968. 2.5 *Credit Hours.*

EN 486. ENGLISH LITERATURE FROM 1660 TO 1900 (*Second Term*)

This course is a study of representative authors and trends in English literature from the Restoration to 1900. It will not be offered during Academic Year 1967–1968. 2.5 *Credit Hours.*

EN 487. EXPOSITORS OF 18TH AND 19TH CENTURY AMERICAN THOUGHT (*First Term*)

This course is a study in depth of the prose writings of prominent American authors, each of whom profoundly influenced more than one field of thought. Individuals studied include Edwards, Franklin, Channing, Jefferson, Emerson, Cooper, Bancroft, Fiske, W. D. Howells, William James, Henry Adams, *et al.* 2.5 *Credit Hours.*

EN 488. MODERN AMERICAN CRITICISM (*Second Term*)

This course consists of an evaluation of the twentieth century American cultural temper emphasizing relationships in the social, literary, artistic, and political criticism between 1900 and World War II. Included will be writings by London, Dreiser, Babbett, Lippmann, Van Wyck Brooks, Mencken, Dos Passos, Fitzgerald, *et al.* 2.5 *Credit Hours.*

DEPARTMENT OF FOREIGN LANGUAGES

Professors: COL W. J. Renfroe, Jr. (Head of Department), COL S. Willard.

Associate Professors: LTCs D. T. Dunne, H. Reiner; Dr. F. Tiller.

Assistant Professors: LTCs E. F. Crowley, E. P. Freedman, J. F. Hook, J. Knight, J. R. Ross, T. J. Stacy, R. D. Vanderslice; MAJs R. E. Bell, W. F. Dunkelberger, E. F. Grubbs, Jr., O. A. Jambon, B. Loeffke, D. A. McNerney, P. S. Meckel, C. A. Olsen, J. T. Rears, J. F. Santilli, Jr., E. J. Shimek II; CPTs W. C. Buell, J. W. Fisher, E. S. Tyler; Dr. F. Tiller; Messrs F. C. H. Garcia, N. Maltzoff, S. G. Saldivar, C. Viollet.

Instructors: LTC G. W. Gallant; MAJs W. P. Clary, Jr., L. V. Hightower, III, D. B. Pruitt, J. C. Toole; CPTs J. E. Bohman, J. F. Lynch, R. R. Moore 3d, J. O. Neal, Jr., K. J. O'Neill, J. B. Sampson, R. J. Schiemann, P. B. Schmidt, M. L. Thomas, L. G. White, F. L. Wilmoth.

Foreign Instructors: MAJ W. Cremer (German Army), MAJ A. J. Lima-Câmara (Brazilian Army).

Executive Officer: LTC E. F. Crowley.

NOTE: Each cadet studies one foreign language—Chinese, French, German, Portuguese, Russian, or Spanish—during his first two years at West Point. The approximate percentage of the entering class to be assigned to each language is fixed by the Department of the Army. Within these quotas cadets are assigned according to their preferences and previous foreign language experience. In general, a cadet is encouraged to continue at West Point the study of a language begun elsewhere. Advanced courses in French, German, Russian and Spanish are offered cadets who wish to continue the study of those languages and who demonstrate their proficiency in oral and written tests given shortly after their arrival at West Point. Cadets may also take up to four additional semesters of foreign language study by pursuing elective courses in their third and fourth years.

Standard Courses

LC 101–102. CHINESE
LF 101–102. FRENCH
LG 101–102. GERMAN
LP 101–102. PORTUGUESE
LR 101–102. RUSSIAN
LS 101–102. SPANISH

Basic course in the language. In keeping with the primary objectives of speaking and understanding, oral work is stressed. Audio-lingual skills are developed by reading aloud, repetition drills, question and answer exercises, prepared and extemporaneous dialogues, individual short talks, and frequent use of the language laboratory. After the first month of the course, all classroom work is normally in the foreign language. *5 Credit Hours (2.5 each term).*

LC 201–202. CHINESE
LF 201–202. FRENCH
LG 201–202. GERMAN
LP 201–202. PORTUGUESE
LR 201–202. RUSSIAN
LS 201–202. SPANISH

Continuation of the 101–102 courses, with increased emphasis on applied grammar through discussions, dialogues, individual talks, and frequent aural

comprehension exercises. Periodic themes. Reading and discussion of several literary works and of historical, geographical, and military material of current interest. Five or six lectures on the history and civilization of the people whose language is being studied. All work conducted in the foreign language. *8 Credit Hours* (*4 each term*).

Accelerated Courses

LF 141–142. FRENCH
LG 141–142. GERMAN
LS 141–142. SPANISH
Prerequisite: One or two years of previous study of the language.

An intermediate course with oral-aural emphasis and a thorough grammar review. Audio-lingual skills are developed by use of pattern drills, question and answer exercises, dialogues, and individual talks. Texts of literary value are read and discussed in class. All classroom work is in the foreign language. *5 Credit Hours* (*2.5 each term*).

LF 241–242. FRENCH
LG 241–242. GERMAN
LS 241–242. SPANISH
Prerequisite: Completion of the 141–142 courses.

Continuation of the 141–142 courses, with increased emphasis on grammatical and syntactical accuracy, both in speech and writing. Reading of selected modern works, to include some writings on military subjects. Periodic themes. Five or six lectures on various cultural aspects of the people whose language is being studied. All classroom work is in the foreign language. *8 Credit Hours* (*4 each term*).

Advanced Courses

LF 151–152. FRENCH
LG 151–152. GERMAN
LR 151–152. RUSSIAN
LS 151–152. SPANISH
Prerequisite: Proficiency based on oral and written tests administered prior to the beginning of Fourth Class year.

Intensive grammar review, with aural-oral emphasis. Extensive use of pattern drills, question and answer exercises, dialogues, individual talks, and periodic themes. Reading and discussion of modern drama and fiction. All classroom work is in the foreign language. *5 Credit Hours* (*2.5 each term*).

LF 251–252. FRENCH
LG 251–252. GERMAN
LR 251–252. RUSSIAN
LS 251–252. SPANISH
Prerequisite: The 151–152 courses in the corresponding language.

Increased use of audio-lingual techniques, talks, debates, and interpreter exercises. Reading in a wider field of literature. Greater emphasis upon the culture and history of the countries concerned, including a series of lectures. Some reading of military writings. All classroom work is in the foreign language. *8 Credit Hours* (*4 each term*).

Elective Courses

LF 381. FRENCH LANGUAGE THROUGH LITERATURE (*First Term*)
LG 381. GERMAN LANGUAGE THROUGH LITERATURE (*First Term*)
LP 381. PORTUGUESE LANGUAGE THROUGH LITERATURE (*First Term*)
LR 381. RUSSIAN LANGUAGE THROUGH LITERATURE (*First Term*)
LS 381. SPANISH LANGUAGE THROUGH LITERATURE (*First Term*)
Prerequisite: The 201–202 or 241–242 courses in the corresponding languages. Not open to cadets who have completed the applicable 251–252 courses.

Readings in literary works by French, German, Brazilian, Russian, Spanish, or South American writers. Class discussions, oral and written compositions, all in the appropriate foreign language. *2.5 Credit Hours.*

LF 382. MILITARY AND SCIENTIFIC READINGS IN FRENCH (*Second Term*)
LG 382. MILITARY AND SCIENTIFIC READINGS IN GERMAN (*Either Term*)
Prerequisite: The 201–202 or 241–242 or 381 courses in the corresponding language.

Military and scientific readings. Class discussions, themes, translation into and from the foreign language. *2.5 Credit Hours.*

LP 382. PORTUGUESE LANGUAGE THROUGH LITERATURE (*Second Term*)
LR 382. RUSSIAN LANGUAGE THROUGH LITERATURE (*Second Term*)
LS 382. SPANISH LANGUAGE THROUGH LITERATURE (*Second Term*)
Prerequisite: The appropriate 381 course, plus demonstrated ability to use the language in more complex situations.

Studies in the history and literature of the respective countries. Class discussions, comparative studies, oral and written presentation of material, all in the appropriate foreign language. *2.5 Credit Hours.*

LF 483. CIVILIZATION AND LITERATURE OF FRANCE (*First Term*)
Prerequisite: LF 251–252 or LF 381–382 or LF 241–242 (upper half) courses.

This course is an integrated study of geography, history and literature, introducing the cadet to the most significant political and social changes as well as to the most typical literary works of each period in order to form a comprehensive picture of the country's life and culture. Contributions to the civilization of the western world will be emphasized. Classroom work is in the foreign language. *2.5 Credit Hours.*

LF 484. CIVILIZATION AND LITERATURE OF FRANCE (*Second Term*)
Prerequisite: LF 251-252 or LF 381-382 or LF 241-242 (upper half) or LF 483 courses.

Continuation of LF 483—Civilization and Literature of France. *2.5 Credit Hours.*

LG 483. HISTORY OF GERMAN CIVILIZATION (*First Term*)
Prerequisite: LG 382 or LG 252.

This course is an integrated study of the geography, history, and culture of Germany, introducing the cadet to the most significant political, social and economic, and artistic events of each period in the country's growth and development. Emphasis will be placed on the German contributions to Western Civilization. "History of German Civilization" will be a comprehensive survey. Classroom work is in the foreign language. *2.5 Credit Hours.*

LG 484. CONTEMPORARY GERMANY (*Second Term*)
Prerequisite: LG 382 or LG 252.

This course is a detailed study of contemporary Germany, introducing the cadet to the political, social, economic, and artistic events since the end of World War II. Emphasis will be placed on Germany's national problems and on her contributions to the Western community of nations, to the Common Market, and to NATO. Classroom work is in the foreign language. *2.5 Credit Hours.*

LR 483. MILITARY AND SCIENTIFIC READINGS IN RUSSIAN (*First Term*)
Prerequisite: LR 251–252 or LR 381–382.

Intensive readings in scientific and military literature to prepare the student to read and understand current Russian literature in these subjects. *2.5 Credit Hours.*

LR 484. RUSSIAN CIVILIZATION (*Second Term*)
Prerequisite: LR 251–252 or LR 381–382.

Greater proficiency in the language to be acquired through a survey of the historical and cultural elements that have developed the USSR and the Russian people. The course will be given in Russian. *2.5 Credit Hours.*

LS 483. CONTEMPORARY HISPANIC-AMERICAN LITERATURE (*First Term*)
Prerequisite: LS 251–252 or LS 381–382 or LS 241–242 (upper half).

A study of outstanding modern authors of Spanish-American Literature. The development and transformation of existing literary genres; new literary forms. Hispanic-American literature as a mirror of history and society of the nations involved. Classroom work is in the foreign language. *2.5 Credit Hours.*

LS 484. CONTEMPORARY HISPANIC-AMERICAN LITERATURE (*Second Term*)
Prerequisite: LS 251–252 or LS 381–382 or LS 241–242 (upper half).

Continuation of LS 483—Contemporary Hispanic-American Literature I. *2.5 Credit Hours.*

LF 485. ADVANCED FRENCH LITERATURE (*First Term*)
LG 485. ADVANCED GERMAN LITERATURE (*First Term*)
LS 485. ADVANCED SPANISH LITERATURE (*First Term*)
Prerequisite: The appropriate 251–252 or 381–382 courses.

A survey course of the literature of France, Germany, or Spain. Class discussions, themes, outside reading, reports, in the appropriate foreign language. *2.5 Credit Hours.*

LF 486. ADVANCED FRENCH LITERATURE (*Second Term*)
LG 486. MODERN GERMAN LITERATURE (*Second Term*)
LS 486. ADVANCED SPANISH LITERATURE (*Second Term*)
Prerequisite: LF 485 or LG 251–252 or LG 381–382 or LG 485 or LS 485 courses.

Advanced studies in the contemporary literature of France, Germany, and Spain, with class discussions, themes, etc., in the appropriate foreign language. *2.5 Credit Hours.*

LP 485. INDIVIDUAL READING PROJECTS IN PORTUGUESE (*First Term*)
LF 487. INDIVIDUAL READING PROJECTS IN FRENCH (*First Term*) (*Not offered in 1967–68*)
LG 487. INDIVIDUAL READING PROJECTS IN GERMAN (*First Term*) (*Not offered in 1967–68*)
Prerequisite: LP 381–382 or LF 485–486 or any two semesters in the LG 400 series.

These courses are intended for those cadets who have the demonstrated language ability and a strong personal desire to accomplish a more detailed study of a particular period of history or literature. All work will be done in the foreign language. Cadets taking these courses will meet individually with the instructor at least once a week. *2.5 Credit Hours.*

LP 486. INDIVIDUAL READING PROJECTS IN PORTUGUESE (*Second Term*)
LF 488. INDIVIDUAL READING PROJECTS IN FRENCH (*Second Term*) (*Not offered in 1968*)
LG 488. INDIVIDUAL READING PROJECTS IN GERMAN (*Second Term*) (*Not offered in 1968*)
Prerequisite: LF 487 or LP 485 or any two semesters in the LG 400 series.

Continuation of LP 485, LF 487, LG 487—Individual Reading Projects in Portuguese, French or German. *2.5 Credit Hours.*

DEPARTMENT OF LAW

Professor: COL F. C. LoUGH (Head of Department).

Associate Professor: LTC T. C. Oldham.

Assistant Professors: LTC J. Norton; MAJ R. W. Jones, CPTs P. J. Kenny, J. S. McAuliffe, J. T. Sherwood, Jr.

Instructors: CPTs G. F. Jacob, F. W. Joynt, J. K. McGuirk, T. L. Moore, Jr., Enoch M. Overby III, W. V. Mallard, T. W. Morris, E. W. Murphy, R. A. Peterson, R. T. Pope.

Standard Courses

LW 301. LEGAL PHILOSOPHY AND BASIC PRINCIPLES OF LAW LEGAL METHODS OF PROOF

Legal Philosophy and Basic Principles of Law. An examination of the principal theories of law which have been set forth by prominent legal philosophers of Western Civilization as well as an introduction to the nature and application of law and a coverage of the traditional legal subjects including contracts, torts, property, and law of persons.

Legal Methods of Proof. An introduction to the Anglo-American rules of proof and the logical basis for such rules with particular emphasis on developing an ability to think logically and to reason rationally in both legal and non-legal areas. *2.5 Credit Hours.*

LW 302. CONSTITUTIONAL LAW MILITARY LAW

Constitutional Law. An examination of the Constitutional concept of the United States government including legislative, judicial, and executive powers and limitations; individual rights under the Constitution; the defense establishment, constitutional powers with respect to International Law, and legal aspects in civil affairs and counterinsurgency.

Military Law. A study of punishments, the component parts of crimes and offenses, criminal responsibility, selected articles of the UCMJ, jurisdiction, pretrial matters, nonjudicial punishment and courts-martial procedures. Basic theories and practical procedures are joined to enhance the cadet's ability to discharge his future responsibilities in military law. *2.5 Credit Hours.*

Elective Course

LW 481. INTERNATIONAL LAW *(Either Term)*

An introduction to International Law to include a discussion of the nature and sources of International Law; problems of nationality; recognition of states; jurisdiction of states; international agreements and diplomatic intercourse; and the law of war. *2.5 Credit Hours.*

DEPARTMENT OF MATHEMATICS

Professors: COL C. P. Nicholas (Head of Department), COL J. S. B. Dick.

Associate Professors: COLs G. W. Bixby, W. H. Karstedt, LTC D. H. Cameron.

Assistant Professors: LTCs T. C. Bielicki, T. H. M. Crampton, G. W. Medsger; MAJs R. H. Allison, M. J. Conrad, E. A. Daggit, E. E. DeMaris, C. R. Domeck, W. Echevarria, P. G. P. Eliot, J. E. Fiscus, V. J. Gongola, W. R. Johansen, J. R. Matteson, D. F. Maurer, G. J. McRee, G. C. Mitchell, C. D. Richards, G. L. Richardson, B. F. Stout, H. J. Skidmore, Jr., E. Valence, Jr.; CPTs R. A. Beltz, R. N. Bierly, B. M. Cowan, J. G. Felber, Jr., R. H. Gates, R. S. Yelverton.

Instructors: MAJs J. E. Brown, D. F. Garvais, J. R. Hocker, H. P. Johnson, E. S. Lynch, P. Makowski, I. R. Mechtly, Jr., R. E. Miles, C. H. Spence, J. R. Strickland, R. E. Works; CPTs T. R. Bennett, W. F. Chamberlain, H. B. Coulter, P. G. Dombrowski, R. A. Gagliano, V. G. Grande, Jr., F. H. Griffis, Jr., E. V. Karl, R. C. Lee, H. L. Popovich, J. W. Searles, W. J. Skinner, W. T. Zaldo, III.

Mathematics at West Point is organized into programs at ascending levels, known as standard, advanced, and elective. In the first two years every cadet is enrolled in either the standard program or in one of three advanced programs, depending on his mathematical preparation and aptitude. The elective program is available to all cadets during the third and fourth years, and overlaps with the advanced programs during the first two years.

Successful completion of the standard program by the end of the second year satisfies the requirement in mathematics for graduation from the Military Academy. The three advanced programs are designed for cadets who, by virtue of exceptional aptitude or above-standard preparation before entering West Point, are able to complete the standard program at an accelerated pace, thus gaining time for extra or substitute courses offered in the elective program. Such cadets may complete from one to four of these advanced courses (3 to 11 credit hours) during their first two years, depending on how much time they gain by validation and acceleration. Cadets in an advanced program who are not able to maintain proper progress are transferred down to a lower program.

During the first year cadets attend mathematics 6 days a week, during the second 3 days a week. They perform five independent exercises on the digital computer during these two years, regardless of whether their program be standard or advanced. The courses constituting the standard and advanced programs are shown below. Parentheses indicate courses for which validation credit is given.

Standard Program: First year, MA 101–104–102; second year, MA 201–202–204. Validation credit, none. Residence credit, 23 hours, all for standard courses.

Advanced Program I: First year, MA 101–154–156; second year, MA (201)–483–202–204. Validation credit, 3 hours. Residence credit, 23 hours, of which 20 are for subject matter in the standard program and 3 for elective MA 483.

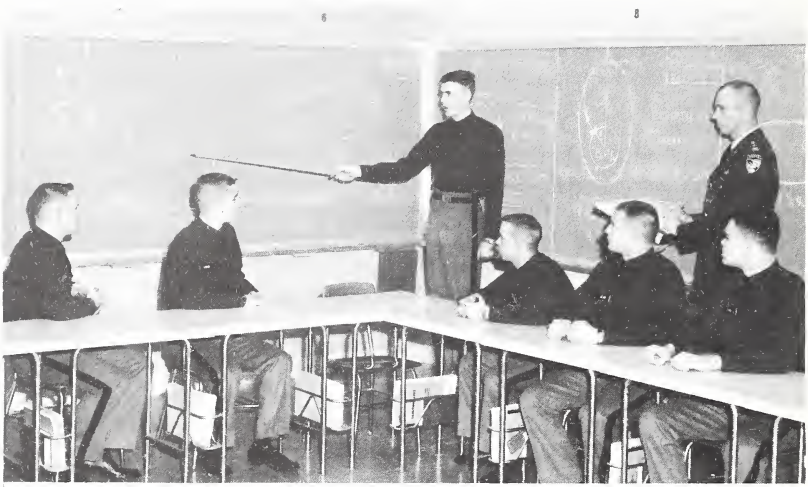
Advanced Program II: First year, MA 157–481–158; second year, MA (201)–483–202–204. Validation credit, 3 hours. Residence credit, 23 hours, of which 17 are for

subject matter in the standard program and 6 for electives MA 481 and MA 483.

Advanced Program III: First year, MA (109)–159–481–(201)–202–204; second year, MA 483–485–484. Validation credit, 8 hours. Residence credit, 23 hours, of which 12 are for subject matter in the standard program and 11 for electives MA 481, MA 483, MA 485, and MA 484.

(*Note.* During his first year in Program III the cadet completes the mathematics required for graduation. His electives during the second year need not be in mathematics, but if he chooses mathematics the appropriate courses are those shown above.)

The subject-matter content of the separate courses is described in the outlines to follow.



Standard Courses

MA 101. CALCULUS AND ANALYSIS

This is the first term course in the first year of the standard program. The study of calculus begins early in the term with a brief introduction to the foundations of the number system, to include measurement, the concept of epsilon, nested intervals, variables, limits, infinite position numerals, and controlled numerical approximations, followed by study of functions of a single real variable, the delta-epsilon criterion, and continuity. Prerequisite topics of vector analytic geometry are introduced in coordination with the further work in calculus, which includes the study of derivatives and differentials of algebraic and transcendental functions, with fundamental applications. Numerical methods suitable to electronic digital computation are emphasized, and each cadet performs concurrent exercises in digital computation, applying principles of calculus. *7.5 Credit Hours.*

MA 102. CALCULUS AND ANALYSIS

This course and MA 104 (Linear Algebra) constitute the second term's work in mathematics for the standard program. MA 102 is a continuation of the calculus begun in MA 101 in the first term. It includes further applications of the derivative, derivatives of functions defined parametrically, and an introduction to differential equations in which emphasis is given to the central force problem, with applications to long range trajectories and orbits. The course then continues with partial differentiation and applications, vector differentiation, the gradient, the divergence, and the curl. It concludes with the fundamental concepts of integral calculus, including formal integration and an introduction to elementary numerical approximations of definite integrals. Again numerical methods are emphasized, with suitable exercises in electronic digital computation. A few lessons in solid analytic geometry, plus some work in spherical trigonometry essential for military applications, are included at the start of the term. *4.5 Credit Hours.*

MA 104. LINEAR ALGEBRA

This course occurs in the early part of the second term of the first-year standard program, interrupting MA 102, with which it is coordinated. MA 104 includes a study of matrices, determinants, systems of linear equations, vector spaces, linear transformations, characteristic values and vectors, and quadratic forms. The course ends with an introduction to linear programming, which treats the optimal solution of a linear system of the type encountered in military applications. *3 Credit Hours.*

MA 201. CALCULUS

This course is given during the first term of the standard program cadet's second year of mathematics. It further develops the integral calculus started in MA 102, to include applications to geometrical and physical problems, infinite series, expansion of functions, and multiple integrals. Problems requiring digital computation are assigned concurrently. *3 Credit Hours.*

MA 202. DIFFERENTIAL EQUATIONS

This is a brief course in differential equations, following the completion of calculus. Continuing from the introduction to differential equations given in first year calculus, it treats solutions of standard types of first, second and higher order equations using integrating factors, undetermined coefficients, variation of parameters, the LaPlace transform, and power series. Solutions by numerical methods are included, with an applicatory exercise using the digital computer. Basic methods for the solution of systems of linear differential equations and partial differential equations are introduced. The course includes applications of ordinary and partial differential equations in physics and engineering. *2 Credit Hours.*

MA 204. PROBABILITY THEORY AND STATISTICAL INFERENCE

This is the final course in the mathematics sequence required for graduation from USMA, and it emphasizes calculus as a prerequisite. Included are fundamentals of probability theory and mathematical models to include random variables, probability distributions and measurements of these distributions, probability and density functions; binomial and normal distributions; use of de Moivre's theorem, the Central Limit theorem, and the Student-t, Chi-Square and Poisson distributions; basic statistical inference including sampling distributions, theory of estimation, hypothesis testing; correlation; and applications of these techniques to practical problems. *3 Credit Hours.*

MA 109. BASIC ANALYSIS

This course consists of portions of MA 101 and MA 102 which may be omitted or accelerated for cadets who have studied corresponding topics before entering the Military Academy. These cadets are enrolled in Advanced Placement course MA 159, and upon successful completion receive validation credit for MA 109 plus residence credit for MA 159. *5.0 Validation Credit Hours.*

MA 154. ADVANCED PLACEMENT LINEAR ALGEBRA

This course occurs in the early part of the second term of the first year and is given to cadets who completed MA 101 with high standing and thereby become eligible for Advanced Program I. MA 154 interrupts MA 156, with which it is coordinated, and includes a study of vector operations, vector spaces, matrices, determinants, properties of linear transformations, systems of linear equations, characteristic values and vectors, and quadratic forms. The course ends with an introduction to linear programming, which treats the optimal solution of a linear system of the type encountered in military applications. The treatment of linear algebra is at a somewhat higher level than that in MA 104, for which it is a substitute. *3.0 Credit Hours.*

MA 156. ADVANCED PLACEMENT CALCULUS AND ANALYSIS

This course and MA 154 (Linear Algebra) constitute the second term's work in mathematics for Advanced Program I. The coverage in MA 156 encompasses MA 102 plus additional calculus ordinarily covered in the second year of the Standard Program. The course concentrates on a rigorous treatment of integral calculus for functions of a single real variable, expansion of functions, and infinite series. It includes a chapter on differential equations, with a study of the central force problem and applications to long range trajectories and orbits. It includes also an introduction to calculus of functions of two or more variables and vector calculus. The cadet who successfully completes Advanced Program I receives residence credit for MA 156 plus validation credit for MA 201. *4.5 Credit Hours.*

MA 157. ADVANCED PLACEMENT CALCULUS AND ANALYSIS

MA 157 is given in the first term of the first year to cadets who qualify for placement in Advanced Program II. The scope encompasses the subject matter of MA 101 plus a major portion of MA 102. The work concentrates on introductory function theory, a rigorous treatment of differential calculus for functions of a single real variable, and a chapter on differential equations with emphasis on the central force problem and applications to long range trajectories and orbits. The course ends with some beginning study of linear algebra, which is then continued in the next term. *7.5 Credit Hours.*

MA 158. ADVANCED PLACEMENT CALCULUS AND ANALYSIS

This course and MA 481 (Linear Algebra and Linear Programming) constitute the second term's work in mathematics for Advanced Program II. MA 158 encompasses the portion of MA 102 not already covered by MA 157, plus additional calculus ordinarily covered in the second year of the Standard Program. The course concentrates on a rigorous treatment of integral calculus for functions of a single real variable, expansion of functions, and infinite series. It includes also an introduction to calculus of functions of two or more variables and vector calculus. The cadet who successfully completes Advanced Program II receives residence credit for MA 158 plus validation credit for MA 201. *4.5 Credit Hours.*

MA 159. ADVANCED PLACEMENT CALCULUS, ANALYSIS AND LINEAR ALGEBRA

This is an accelerated course in introductory function theory plus a rigorous treatment of differential and integral calculus, to include a chapter on differential equations with emphasis on the central force problem and applications to long range trajectories and orbits. This course is given in the first term of the first year to cadets who qualify for the highest level of placement, i.e., Advanced Program III. The scope encompasses the subject matter of first and second year standard program calculus and analysis less portions for which validation credit is given (MA 109 and MA 201), plus beginning lessons in linear algebra. The study of linear algebra is then immediately continued in MA 481. *7.0 Credit Hours.*

Elective (Advanced) Courses

These courses in junior and senior level undergraduate mathematics are offered to all cadets as electives during their third and fourth years at West Point. In addition, qualified cadets may complete one or more of these courses during their first and second years at West Point, as participants in one of the advanced programs.

MA 481. LINEAR ALGEBRA AND LINEAR PROGRAMMING

(*Either term for First and Second Classmen, and as a substitute course in lieu of MA 154 for Fourth Classmen in Advanced Programs II and III*).
Prerequisite: MA 104 or MA 154, or enrollment in Advanced Program II or III, and permission of the Department.

This course includes a study of vector operations, vector spaces, matrices, determinants, properties of linear transformations, systems of linear equations characteristic values and vectors, and quadratic forms. The linear programming portion treats the optimal solution of linear system. It includes an introduction to convex sets and n-dimensional geometry, a development of the linear programming problem, and the simplex computational procedure. Practical problems are included, with emphasis on military applications and their solutions with aid of the digital computer. For First and Second Classmen the primary emphasis is on the linear programming portion, after a suitable review of the previously studied linear algebra.
2.5 Credit Hours. (As an elective.)
3.0 Credit Hours. (As a substitute for MA 154 in Advanced Program II or III.)

MA 482. ABSTRACT ALGEBRA (*Second Term*)
Prerequisite: MA 154 or MA 481. By permission of the Head of the Department of Mathematics only.

This is an introductory course in the abstract structures of algebra for those cadets planning specifically to take graduate work in mathematics soon after graduation. The subject is introduced by a study of mappings and operations defined on sets. The development of group and ring theory is the basis of the course. A study of the ring of polynominals and examples of fields are included. The course culminates with vector spaces as the unifying concept. *2.5 Credit Hours.*

MA 483. ADVANCED CALCULUS I (*First Term*)
Prerequisite: MA 201. Department permission required.

This course treats differential and integral calculus of scalar and vector functions of more than one variable to include: Jacobians, gradient, curl, divergence,

multiple integrals, line and surface integrals, Green's Theorem, the Divergence Theorem and Stokes' Theorem. Applications to problems in physics and engineering are emphasized.
2.5 Credit Hours (Afternoon Elective).
3 Credit Hours (Morning Elective).

MA 484. DIFFERENTIAL EQUATIONS (Intermediate) (*Either Term*)
Prerequisite: MA 202 and MA 483. Department permission required.

This course includes ordinary differential equations; power series solutions and the more important special functions of engineering; Fourier Series and orthogonal functions; partial differential equations and boundary value problems; numerical methods; and applications to science and engineering. *2.5 Credit Hours.*

MA 485. ADVANCED CALCULUS II (Complex Variable) (*Either Term*)
Prerequisite: MA 483. Department permission required.

This course is primarily an introduction to functions of a complex variable, including algebra of a complex variable, elementary functions, limits, derivatives, Cauchy's Integral Theorem and Formula, series representation to include Taylor's and Laurent's series, theory of residues, conformal mapping and linear transformations, Poisson's Integral Formula, and special topics in complex potential. *2.5 Credit Hours.*

MA 486. NUMERICAL ANALYSIS WITH DIGITAL COMPUTATION (*Second Term*)
Prerequisite: MA 202. (May be taken concurrently.) Department permission required.

This course emphasizes the methods of numerical analysis with the digital computer in a strong supporting role. It includes methods grouping together the cadet's entire mathematical background in linear algebra, calculus, and differential equations in a context of modern numerical methods requiring programming and execution of solutions on the digital computer. *2.5 Credit Hours.*

MA 487. REAL VARIABLE THEORY (*First Term*)
Prerequisites: MA 483 and MA 485. By permission of the Head of the Department of Mathematics only.

This is a senior-undergraduate mathematics course designed for those cadets planning specifically to take graduate work in mathematics soon after graduation. It introduces students to Dedekind cuts, advanced set theory, metric spaces, and some concepts in topology. Many topics from the calculus previously studied, such as convergence, continuity, and sequences are studied more deeply in this setting. The properties of the definite integral are expanded to the Riemann-Stieltjes integral *2.5 Credit Hours.*

DEPARTMENT OF MECHANICS

Professors: COL E. R. Heiberg (Head of Department), COL F. A. Smith, Jr.

Associate Professors: LTC J. D. Daigh; MAJs H. N. Schwarzkopf, J. M. Sigler.

Assistant Professors: MAJs R. D. Kenyon, B. A. Logerquist, R. L. Parsons, C. M. Radler, A. M. Solberg; CPTs D. E. Beach, L. F. Ermold, J. B. Hilmes, B. C. Johnson, G. R. Kleb, B. D. Marsh, R. D. Welch, Jr.

Instructors: MAJs W. R. Parks, D. R. Pope, G. W. Williams; CPTs R. C. Bennett, T. P. Hueman, S. W. Hickman, H. D. Kevin, N. J. Kuklinski, P. F. Lagasse, F. B. Plummer, II, F. J. Redd, R. S. Seward, T. K. Seybold.

Standard Courses

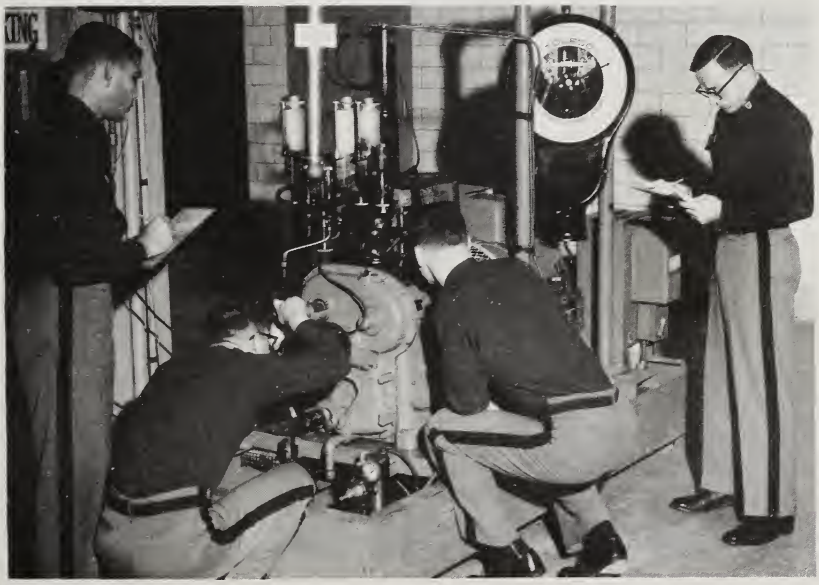
ME 301. THERMODYNAMICS

A study of the transfer and conversion of thermal energy and mechanical energy. The course includes a study of fundamentals, types of energy, properties of thermodynamic media, the first and second laws of thermodynamics, the ideal gas, thermodynamic processes, gas engine cycles, vapor power cycles, refrigeration, nozzles and jet propulsion, and mixtures. The more capable students study the fundamentals of heat transfer in lieu of certain reviews and examinations.

Laboratory. A correlation of theory and practice. The equipment used includes gasoline, Diesel and fuel research engines, steam engines and turbines, air compressors, gas turbines, and refrigeration and air conditioning units. *4 Credit Hours.*

ME 302. FLUID MECHANICS

A study of the laws of mechanics as they apply to liquids, vapors, and gases. The course includes a study of fluid properties; principles of fluid statics; fluid



flow concepts; impulse-momentum; viscous effects; closed conduit flow; boundary layer and basic drag concepts; dimensional analysis and dynamic similitude; flow measurement; open channel flow; aerodynamics with emphasis on lift, drag, flight stability, and shock effects in transonic and supersonic flight; compressible flow. The more capable students solve a special problem in lieu of certain reviews and examinations.

Laboratory. Practical exercises illustrating theory previously studied in the classroom. Equipment used includes pumps, turbines, flow measurement devices, pipe friction measurement devices, supersonic and subsonic wind tunnels, smoke tunnels, and a supersonic nozzle thrust stand. *4 Credit Hours.*

ME 303. ENGINEERING MECHANICS (*Either Term*)

The relationships between external effects and force systems for particles and rigid bodies are developed by vector mathematics as an engineering science. The statics portion of the course includes a study of equilibrium in two and three dimensions, centroids, distributed forces, analysis of trusses and frames, shear and bending moment diagrams, and friction. The dynamics portion of the course consists of a study of kinematics and kinetics for both particles and rigid bodies. Newton's Second Law, work-energy and impulse-momentum methods are used in particle dynamics. Dynamic analysis by Newton's Second Law is taught for rigid bodies. Mechanical vibrations are introduced. *4 Credit Hours.*

Advanced Courses

ME 351. ADVANCED THERMODYNAMICS

Prerequisite: Demonstrated superior ability in physics and mathematics.

An accelerated coverage of the subject material of ME 301 with further study of the First and Second Laws of Thermodynamics and their consequences. Emphasis is on a vigorous mathematical analysis of thermodynamic systems and media. *4 Credit Hours.*

ME 352. ADVANCED FLUID MECHANICS

Prerequisite: Demonstrated superior ability in Thermodynamics and Engineering Mechanics.

A vector-oriented coverage of the topics listed in ME 302, with emphasis on the theoretical and mathematical development of the general laws of fluid mechanics. A knowledge of vector algebra is assumed; however, the field operators of vector calculus are developed carefully and thoroughly.

Laboratory. Practical exercises illustrating theory developed in the classroom. Equipment available includes pumps, turbines, flow measurement devices, pipe friction measurement devices, supersonic, subsonic and smoke tunnels, and a supersonic nozzle thrust stand. *4 Credit Hours.*

ME 353. ADVANCED ENGINEERING MECHANICS (*Either Term*)

Prerequisite: Demonstrated superior ability in physics and mathematics.

Coverage of the subject material of ME 303 is accelerated. Space trusses, virtual work and stability are also included in statics. Dynamic analysis of rigid bodies by work-energy and impulse-momentum, system of particles, bodies of variable mass, general three-dimensional motion of a rigid body and damped and forced vibrations problems are added to the dynamics subject material of ME 303. *4 Credit Hours.*

Elective Courses

ME 384. MECHANICS OF MATERIALS (*Second Term*)
Prerequisite: ME 303.

This course develops the elastic and inelastic relationships between external forces (loads) acting on deformable bodies and the stresses and deformation produced. The study includes centric, torsional, flexural and combined loading, beam theory, column theory, and the influence of properties of materials. Laboratory exercises illustrating the above principles are conducted frequently throughout the course. *4 Credit Hours.*

ME 386. ADVANCED MECHANICS OF MATERIALS (*Second Term*)
Prerequisites: ME 303 and consent of instructor.

Subject material of ME 384 is covered in greater depth. The final portion of this course is a special design problem of a beam-column member. *4 Credit Hours.*

ME 481. GAS DYNAMICS (*Either Term*)
Prerequisites: ME 301, ME 302.

A course covering the general field of compressible fluid motion including topics of interest in aeronautics, astronautics, and the study of ballistic missiles. The course presents basic principles of fluid dynamics and thermodynamics and proceeds to concepts peculiar to both subsonic and supersonic compressible flow. Principal analysis of fluid motion is one-dimensional covering isentropic flow, normal shock waves, and flow in ducts with heat transfer and friction. An introduction to two and three-dimensional supersonic flow is also presented including a study of oblique shock waves and expansions and conical shock waves. *2.5 Credit Hours.*

ME 482. HEAT, MASS AND MOMENTUM TRANSFER (*Second Term*)
Prerequisites: ME 301, ME 302.

This course offers a unified treatment of transfer phenomena, emphasizing the similarities between heat, mass, and momentum transfer processes, where applicable. Included is a broad treatment of ablation, boiling, condensation, drying of solids, heat exchanger design, and radiation, including turbulent as well as laminar solutions. *2.5 Credit Hours.*

ME 483. SPACE MECHANICS (*Either Term*)
Prerequisite: ME 303.

An introduction to the trajectory problem of the space vehicle applying the principles of mechanics to the orbits of satellites and other bodies in space acted on by a central force system. The course includes a study of the bodies of the solar system, the development of Kepler's Laws of motion, the geometry of two-body conic orbits, principal coordinate systems, and astrodynamic constants. A brief consideration is made of the 3-body problem, the n-body problem, and several methods of orbit determination. The final portion of the course is a study of rendezvous, interception, and interplanetary orbits. *2.5 Credit Hours.*

ME 485. CONTINUUM MECHANICS (*First Term*)
Prerequisite: ME 301, ME 302, ME 303, MA 483.

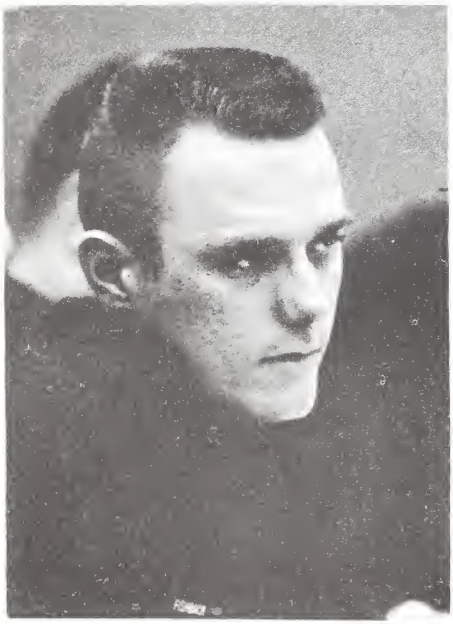
This course forms a foundation for deeper study in special branches such as hydrodynamics, gas dynamics, elasticity and plasticity. Necessary concepts and theorems of tensor geometry are developed at the start. Study of state of stress, kinematics of instantaneous motion, the fundamental mass, momentum

and energy theorems, and constitutive equations form the foundation. Applications to problems with perfect fluids, viscous fluids, plastic materials and elastic materials are included. *2.5 Credit Hours.*

ME 486. MECHANICAL VIBRATIONS ***(Second Term)***

Prerequisite: ME 303.

This introductory course in vibrations provides the necessary background for continued development in this rapidly expanding field. Free, damped, and forced vibrations of the linear single degree of freedom system are covered in detail. Shock induced vibrations, shock spectrum analysis, and non-linear single degree of freedom systems including a study of phase-plane technique are presented. Multi-degree of freedom systems are studied with particular attention on matrix analysis, numerical methods and computer solutions. Analysis of continuous systems provides a vehicle for the discussion of differential equations, boundary value problems, and eigenvalue solutions. *2.5 Credit Hours.*



DEPARTMENT OF MILITARY ART AND ENGINEERING

Professors: COL C. H. Schilling (Head of Department), COL T. E. Griess.

Associate Professors: LTCs R. D. Pinto, M. D. Johnson.

Assistant Professors: LTCs R. L. Ackerson, R. J. Eineigl, C. T. Earnest, J. Rutledge; MAJs J. P. Franklin, R. W. Miller, D. J. Palladino, D. R. Palmer, L. F. B. Reed, E. J. Rush, E. H. Turek; LCDRs C. A. Sorenson; J. W. Woodmansee.

Instructors: LTCs N. J. Andre, T. W. Collier, C. E. Sell, W. K. Stockdale; MAJs D. E. Cluxton, P. C. Driscoll, J. W. Dunn, E. C. May, C. T. Ogren, N. J. Robinson, J. E. Torrence, R. L. Tripp; CPTs R. V. Brass, J. F. Corby.

Standard Courses

HM 401–402. HISTORY OF THE MILITARY ART

Prerequisites: MI 301–302. (May be taken concurrently.)

The evolution of the art of war—on land, on sea, and in the air, and its probable course in the future. Beginning with the campaigns of Alexander of Macedon, this course explains the changes in concepts of warfare which led to the replacement of royal armies by national armies, and to the emergence of global and total wars. The historic development and modern application of all types of warfare are considered, from guerrilla operations to nuclear warfare. Throughout the course, emphasis is given to: the impact of continuous technological and industrial progress on the techniques of warfare through the development of new weapons and equipment; the gradual recognition, formulation, and application of the governing principles of war; the increasing influence of logistics on strategy and tactics; the growing interrelationship of land, sea, and air power, and the consequent problems and principles involved in the organization and functioning of high commands in joint operations; the resurgence of irregular and unconventional warfare; the attributes of outstanding great captains and their contributions to the art of war; and to the doctrines and philosophies of important military thinkers and writers. The course also points out the impact on warfare of nonmilitary factors—treated in detail by the Department of Social Sciences—concurrently with the study of military operations. *8 Credit Hours.*

CE 401. STRUCTURAL ANALYSIS

Prerequisites: ME 303 or ME 353. (ME 384 or ME 386 is recommended.)

Analysis of stresses in statically determinate and indeterminate structures and structural members due to uniform loadings, concentrated loadings, and combinations thereof. It includes determination of reactions, shear, moment, and axial stresses; placement through the use of influence lines of moving live loads to produce maximum stress; the analysis of maximum stress in simple and subdivided, parallel and non-parallel chord trusses, continuous beams, and basic structural frames; the analysis of members subject to reversal of stress; introduction to the analysis of long span structures, space frames, and cables; and approximate methods of analysis of indeterminate structures. Analytical methods utilized for indeterminate structures include moment-area theorems, slope deflection and moment distribution. The augmented course given upper sections (upper 30–40 percent of class) consists of the above with advanced additional material. The upper section cadet pursues one of four elective subcourses during the last six lessons of the term. Each subcourse covers the analysis of more complicated indeterminate structures involving rigid frames with sidesway and sloping legs, support settlement and elastic supports, introduction to non-

prismatic members, and analysis of multistory frames. The method of analysis is either Moment Distribution, Slope Deflection, Energy Methods, or Matrix Methods. Throughout the course emphasis is given to development of an understanding of the engineering philosophy and the decision-making process. *4 Credit Hours.*

CE 402. STRUCTURAL DESIGN AND FIELD ENGINEERING
Prerequisite: CE 401.

Study of the principles and theory of design of steel and timber structures, with an introduction to reinforced concrete design. The Steel Design subcourse includes design of beams, tension and compression members, and riveted and welded joints. Fatigue considerations are included. The engineering characteristics of timber as a material and the design of simple timber structural members are included in the Timber Design subcourse. A large portion of the course is devoted to the solution of a complete engineering design problem starting with the development of the engineering concept and requiring creative thought and the application of principles studied previously. The introductory study of soils includes classification and identification systems and engineering characteristics of soils. Instruction in concrete includes engineering characteristics of concrete as a material, fundamentals of concrete proportion and mix design, and placement and curing. Concrete laboratory work includes standard quality and control tests and demonstration of the fundamental laws.

The augmented course given upper sections includes a more extensive coverage of the above topics with the following additional material: a more comprehensive engineering design problem; the basic theory of reinforced concrete design to include design of beams, slabs, web reinforcement, and columns; introduction to prestressed concrete design. Throughout the course emphasis is given to development of an understanding of the engineering philosophy and decision-making process. *4 Credit Hours.*

Advanced and Honors Courses

CE 451–452. HONORS COURSE IN CIVIL ENGINEERING

Prerequisite: ME 303. (ME 384 or ME 386 is recommended.) Standing in top 100 students in General Order of Merit plus having a demonstrated ability in mathematics, physics, and mechanics of solids.

***Note.* All cadets who meet the prerequisites will be notified in May of the Academic Year preceding the year they are scheduled for CE 401 or CE 453. The 12 most qualified volunteers, as determined by the Head of the Department, will then be enrolled in CE 451–2 in lieu of CE 401–2 or CE 453–4.**

The Honors Course for exceptionally capable cadets includes the topics listed above in the two standard courses (CE 401 and CE 402). The cadet accelerates this study at a pace determined by his own individual capability. He is excused from regular class formations, instead meeting as required with his advisor. Teaching techniques normally used for graduate studies are employed. These emphasize individual study and research. Time saved by accelerated study is used to cover each subject in more depth through the use of additional references and to study advanced topics of cadet choice and to accomplish an individual analytical and/or laboratory project.

The advanced topics studied represent approximately one-third of the course, and in combination with the deeper coverage of the standard course material result in an increase of approximately fifty percent over the scope of the standard course. Typical approved additional topics from which the cadet may choose include but are not restricted to the following:

Structural Analysis: Numerical integration for shear, moment, and deflection; conjugate beam theory; advanced topics in slope deflection and moment distribution; Castigliano's Theorem; Theory of Least Work; structural applications of Topology, Matrix Methods, and Network Analogy; electronic digital computers and their application to the solution of civil engineering problems.

Structural Design: An extension of reinforced concrete design; basic theory of prestressed concrete; optimization techniques in design; and probability approach to safety factors.

Soils and Concrete: Concrete laboratory techniques, soil mechanics laboratory, and soil trafficability. *8 Credit Hours.*

Elective Courses

HM 381. REVOLUTIONARY WARFARE (*Either Term*)

Prerequisite: None.

This course provides a study of the art of waging and countering revolutionary warfare to accomplish national objectives. It supplements HM 401–402 by providing more thorough and detailed coverage than is possible in the regular course. The course includes studies of the historic development of revolutionary warfare, stressing its various forms, its different causes, and the differing techniques required to meet varied conditions of climate, terrain, and enemy activity. It also covers outstanding theorists in this form of warfare, the employment of revolutionary warfare in support of conventional military operations, and the Communist emphasis on offensive revolutionary warfare. *2.5 Credit Hours.*

HM 481. EVOLUTION OF MODERN WARFARE (1400–1900) (*First Term*)

Prerequisite: HM 401. (May be taken concurrently.)

The course traces the evolution of the art of warfare in the western world from the late Medieval Age to the dawn of the twentieth century. Supplementing the

material presented in the History of the Military Art course (HM 401–402), this elective probes more deeply into the correlative development of weapons, tactics, strategy and organization, theories of warfare, and defense of the state. *2.5 Credit Hours.*

HM 484. TWENTIETH CENTURY WARFARE (1900–THE PRESENT) (*Second Term*)
Prerequisite: HM 402. (May be taken concurrently.)

This course provides a study of the evolution of warfare during the 20th century by emphasizing the development of weaponry, tactics, organization and generalship. Beginning with the Russo-Japanese War of 1904–05, the major wars of the century are considered in their operational aspects as well as their impact on the development of the military art. A portion of the course is devoted to a consideration of some of the major command decisions of World War II in order to develop a better understanding of the pertinent factors which led to their solutions. This course supplements HM 402 by a more penetrating study of the development of modern warfare than is possible in the broad scope of the regular course. *2.5 Credit Hours.*

CE 453–454. INTRODUCTION TO NUCLEAR ENGINEERING
Prerequisites: ME 303 or ME 353, PH 305. (EL 382, ME 384 or ME 386 is recommended.) PH 487 is a concurrent requirement with CE 453 (exceptions may be made by the Head of the Department).

This course is offered to selected cadets in lieu of, or in addition to, the standard Civil Engineering course CE 401–402. It provides study of engineering principles applied in the broad nuclear power field, with emphasis on the engineering philosophy involved in the transition from scientific theory to the solution of practical problems. The course includes the basic principles of structural analysis, radiation effects and health physics, radiation attenuation and shield design, pressure vessel design, and reactor and energy conversion system analysis and design. Introduction to nuclear power plant economics and to engineering applications of nuclear explosives are also included. The course culminates in a complete engineering design problem illustrating the theory and principles studied previously. *8 Credit Hours.*

CE 381. SOIL MECHANICS (*Either Term*)
Prerequisite: ME 303 or ME 353. (May be taken concurrently.)

A study of the fundamentals of soil mechanics and the application of these fundamentals to engineering problems. The introductory lessons are focused on an understanding of the composition and structure of granular and clay soils and soil-water consistency. Other soil characteristics studied include permeability, stress distribution, consolidation, shearing strength, slope stability, bearing capacity and earth pressures. These studies are combined with the principles of engineering mechanics and mathematics in attacking and solving practical problems such as prediction of settlement, calculation of seepage, drainage design, earth dams and embankments, footing and pile foundations, retaining walls, soil stabilization and soil trafficability. The use of electronic computers in these applications is demonstrated where applicable. Basic laboratory work comprises determination of Atterberg limits, soil compaction, unconfined compression, direct shear, flow net analysis and other tests associated with the solution of soil engineering problems. *2.5 Credit Hours.*

CE 481. DESIGN OF CONCRETE STRUCTURES (*Either Term*)
Prerequisites: ME 303 or ME 353, CE 401. (CE 401 may be taken concurrently.) (ME 384 or ME 386 is recommended.)

The theory of reinforced concrete design and analysis. This course includes a basic study of concrete as a material, laboratory investigations and demonstrations, and the design and analysis of conventional structural elements. The scope includes beams, continuous one-way and two-way slabs, eccentrically loaded columns, and footings. Ultimate strength theory is emphasized. The course culminates in an engineering design problem which utilizes most of the material covered in the course. A small number of selected cadets taking this course in the first term may participate in a research project during the second term under Course CE 484, Individual Engineering Projects. Application of computers is included wherever appropriate. Emphasis is given throughout the course to the development of an understanding of the philosophy of engineering and the decision-making process. *2.5 Credit Hours.*

CE 482. ADVANCED STRUCTURAL ANALYSIS (*Second Term*)
Prerequisite: CE 401. (ME 384 or ME 386 is recommended.)

Continuation of the study of structural analysis (CE 401), mainly in the area of indeterminate structures. Methods of analysis appropriate to both the elastic and plastic theory are studied. Elastic theory methods include conjugate beam, virtual work, Castigliano's Theorem, and the method of least work. Nuclear blast dynamic loads and numerical approximate analysis such as numerical integration of the beam differential equations and the finite differences method are considered. Matrix methods of structural analysis which are useful in computer solutions are introduced. Engineering design problems are included to give a comprehensive review of the course. Throughout the course, emphasis is given to the development of an understanding of the engineering philosophy and the decision-making process. *2.5 Credit Hours.*

CE 484. INDIVIDUAL ENGINEERING PROJECTS (*Second Term*)
Prerequisite: CE 401.

The objective of this course is to permit the cadet to concentrate his study in an area of particular individual interest dealing with a specialized topic in military or civil engineering either within or outside the scope of the standard course, CE 401–402. The course is conducted on a small group or individual basis and consists of field trips, laboratory and classroom work and group discussion. The exact scope of the course of study will be established through discussion between the cadet and the Course Director. The course is presented so that the cadet is required to establish the definition of the problem and its parameters; to study the fundamentals involved; to organize his own plan of attack; to determine his laboratory procedure if laboratory work is involved; to analyze the problem; and to achieve a solution. Throughout, emphasis is given to the engineering decision-making process. *2.5 Credit Hours.*

DEPARTMENT OF MILITARY HYGIENE

Professor: COL J. H. Voegtly (Head of Department).

Assistant Professor: MAJ R. J. Summary.

The Department of Military Hygiene presents instruction to the cadets during their first two years at the Military Academy.

During the summer of the Fourth Class year, the cadet receives instruction in self and first aid, field sanitation and personal hygiene. In the academic portion of the Fourth Class year, the cadet receives instruction in the basic anatomy and physiology of the reproductive system and the effects of alcohol, tobacco and drugs.

During the Third Class summer training, the cadet receives instruction in the effects of the environment on units in the field and additional instruction in first aid with emphasis placed on the responsibility of the commander at small unit level.

DEPARTMENT OF ORDNANCE

Professor: COL J. D. Billingsley (Head of Department).

Associate Professors: COL R. W. Samz; LTC M. J. Herbert.

Assistant Professors: MAJs K. E. Lager, S. L. Myers, J. J. Prentice, H. C. Puscheck, L. C. Ross, L. F. Skibbie.

Instructors: LTC K. E. Lockwood; MAJs W. F. Crews, S. R. Ely, J. A. Apperson; CPTs J. W. Cavender, D. L. Kouns, E. F. LaBorne, D. P. Tillar.

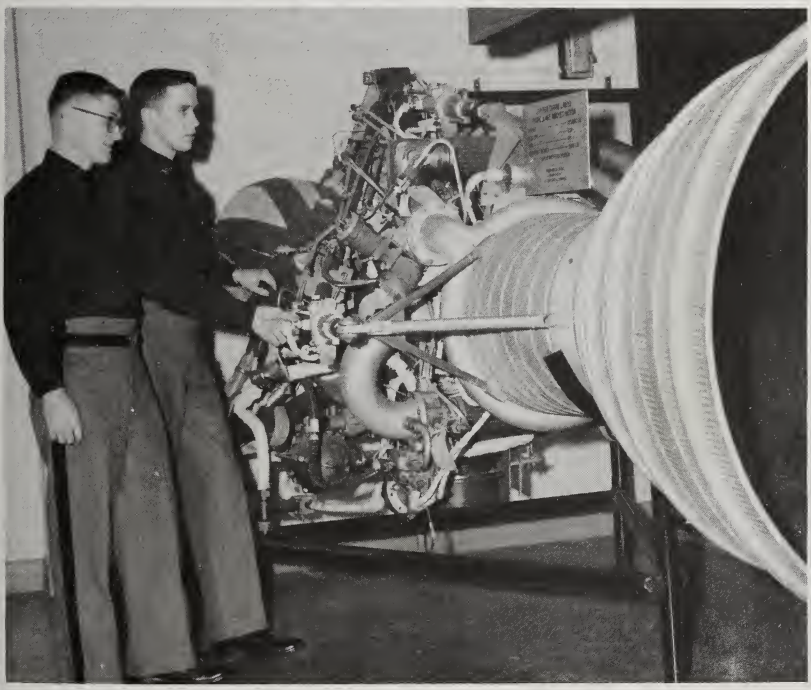
Laboratory Officer: CW3 J. B. Cullum.

Standard Course

OE 401–402. ORDNANCE ENGINEERING

Prerequisites: EL 301, 304; PH 305; ME 301, 302, 303.

This course is designed to give the cadet experience in the application of previously studied scientific and engineering principles to weapon systems. Coverage is given to sources of energy such as chemical, electrical, and nuclear types; ballistics including electronic computers, weapon system components, trajectories, flight stabilization, servomechanisms, guidance, fuzes, and terminal effects; propulsion including the rocket, gas turbine, spark and compression ignition engines, power transmission, engineering materials, land and air locomotion; weapon system design study including the development of parameters for and the analysis and design of a proposed new Army weapon system. Integrated laboratory exercises are included. *8 Credit Hours* (*4 each term*).



Honors Course

OE 451–452. HONORS COURSE IN ORDNANCE ENGINEERING
Prerequisites: Standing in top 10 percent of class. Permission of the Department.

The Honors Course for exceptionally capable cadets includes all topics listed for the standard course (OE 401–402). The cadet accelerates this study at a pace governed by his own individual capability. A minimum of one class per week is scheduled in lieu of regular class attendances. Teaching techniques normally used for graduate studies are employed, emphasizing individual study and research. The time gained is used to cover one or more advanced topics of cadet choice or an individual analytical and/or laboratory project, where approved. *8 Credit Hours* (*4 each term*).

Elective Courses

OE 385. MANAGEMENT ENGINEERING (*Either Term*)
Prerequisite: MA 204.

An analytical approach to the development and application of management engineering techniques for effective work planning and control. Emphasis on the scientific method of analysis and its application in achieving effective use of resources, increased operational readiness of equipment, increased productivity of personnel, increased quality of work, and improved bases for decision-making. Development of techniques to include schematic models engineering programming, statistical methods and economic analysis. Concurrent application of techniques to analyses of selected management problems and cases involving process and facilities planning, methods study and motion economy, work measurement and scheduling, inventory control, process control, and quality control. Term project involving analysis of cases selected from local post support activities. 2.5 *Credit Hours.*

OE 481. AUTOMOTIVE ENGINEERING (*Either Term*)
Prerequisites: ME 301, 302, 303. (ME 303 may be taken concurrently.)

An integrated engineering course designed to stress the engineering approach in the analysis of vehicular engineering systems. After an introduction to the problem of land mobility, the course covers the detailed analysis of powerplants with their associated auxiliary systems, as well as power train and chassis components. The course is climaxed by the investigation of vehicle performance in terms of acceleration, power and load capacity both on hard surface roads and in cross country operation. An integrated laboratory is designed to prove the theoretical analysis. Consideration is given to practical problems encountered by the U.S. Army in the field. 2.5 *Credit Hours.*

OE 482. INDIVIDUAL ORDNANCE PROJECT (*Second Term*)
Prerequisites: OE 401 or OE 451 and permission of the Department.

The objective of the course is to permit advanced or specialized study of scientific principles applied in the field of Ordnance Engineering. Study may include either or both theoretical or laboratory effort based upon a sound preparatory investigation in mathematics and/or the basic sciences. Conduct of course will be on an individual or small group basis. Exact scope of study to be established by consultation between the cadet and the Professor of Ordnance. 2.5 *Credit Hours.*

OE 483. ENGINEERING MATERIALS (*First Term*)
Prerequisites: CH 201–202; PH 305; ME 303.

The course provides an introduction to the properties and behavior of solid materials commonly used in engineering applications. Emphasis is placed on the structural and electronic characteristics which determine these properties. Coverage includes crystallography, atomic bonding and radii, solid solutions, equilibrium conditions and phase diagrams, rate reactions, elastic and plastic behavior, dislocation theory, thermal conductivity and specific heat, and the electrical conductivity of metals. Integrated laboratory periods include instruction in: x-ray diffraction, thermal analysis, metallurgical microscopy and specimen preparation, electron microscopy, photomicrography, and photographic darkroom techniques. *2.5 Credit Hours.*

OE 487. OPERATIONS RESEARCH (*Either Term*)
Prerequisites: OE 385 and permission of instructor and Department.

This course develops in greater depth certain quantitative techniques introduced in OE 385, Management Engineering. These techniques include: linear programming, queuing theory, inventory theory and simulation. In addition, certain advanced techniques are introduced and developed, including reliability and replacement models, game theory and Lanchester's models of combat. Applications of these models are made to problems of resource allocation, supply, maintenance and conflict. Probability and statistics are reviewed as the underlying basis of most operations research methods. Approaches to problem formulation, model building and verification, data collection and solution implementation are discussed. *2.5 Credit Hours.*

DEPARTMENT OF PHYSICS

Professor: COL E. A. Saunders (Head of Department).

Associate Professors: LTCs D. Freed, L. E. Radford, M. G. Sheffield.

Assistant Professors: MAJs W. A. Childs, R. N. Mathis, R. R. Mills; CPTs J. F. Baur, C. H. Carmean, W. J. Garcia, R. L. Hobson, R. W. Riordan, P. W. Tomiczek.

Instructors: MAJs J. A. Bishop, W. T. Cooper, F. W. Kulik, J. S. Willis; CPTs H. L. Briggs, E. J. Brady, J. C. Ferguson, D. V. Fowler, B. J. Gronich, J. P. Johnson, P. J. Kelly, C. E. Langseth, T. R. Mooney, D. B. Williams; 1LT P. W. Forbes.

Standard Courses

PH 201. PHYSICS I

Prerequisite: None.

The first semester in a three-semester sequence of general and modern physics. This semester is devoted primarily to the fundamentals of mechanics. A laboratory program designed to develop an appreciation of scientific techniques and to illustrate fundamental physical concepts is an integral part of the course. *4 Credit Hours.*

PH 202. PHYSICS II

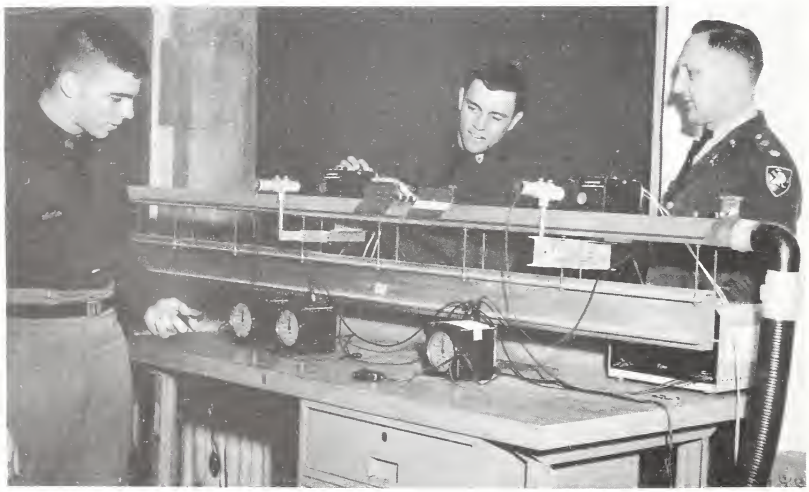
Prerequisite: PHYSICS I.

The second semester in a three-semester sequence of general and modern physics. This semester is devoted primarily to the fundamentals of electricity, magnetism and optics. A laboratory program designed to develop an appreciation of scientific techniques and to illustrate fundamental physical concepts is an integral part of the course. *4 Credit Hours.*

PH 303. PHYSICS III

Prerequisites: PHYSICS I AND II.

The third semester in a three-semester sequence of general and modern physics. This semester is devoted primarily to the fundamentals of quantum physics as



applied to atoms, molecules, solids and nuclei. A laboratory program designed to familiarize the student with radiation detection and counting devices is an integral part of the course. It includes experimental determination of decay constants and absorption coefficients. *4 Credit Hours.*

Advanced Courses

PH 251. ADVANCED PHYSICS I
Prerequisite: None.

The first semester in a three-semester sequence of advanced classical and modern physics for selected students. This semester is devoted to the study of mechanics of particles and finite bodies. Vector and scalar fields and the effects of special relativity are introduced. A laboratory program designed to develop an appreciation of scientific techniques and to illustrate fundamental physical concepts is an integral part of the course. A number of extended laboratory exercises of a more sophisticated nature are also required. *4 Credit Hours.*

PH 252. ADVANCED PHYSICS II
Prerequisite: PH 251. (Selected students from PH 201 may be permitted to take this course.)

The second semester in a three-semester sequence of advanced classical and modern physics for selected students. This semester is devoted to the study of electromagnetic phenomena and the laws of electromagnetism (Maxwell's equations). The basic principles of physical optics are introduced. The laboratory program of PH 251 illustrating fundamental principles (including extended laboratory exercises) is continued. *4 Credit Hours.*

PH 353. ADVANCED PHYSICS III
Prerequisites: PH 251 and 252. (Selected students from PH 201 and PH 202 may be permitted to take this course.)

The third semester in a three-semester sequence of advanced classical and modern physics for selected students. This semester is devoted primarily to the fundamentals of quantum physics as applied to atoms, molecules, solids and nuclei. The laboratory program of PH 251 and PH 252 is continued and includes radiation detection and counting devices, determination of decay constants and absorption coefficients. *4 Credit Hours.*

Elective Courses

PH 383. INTRODUCTION TO THEORETICAL PHYSICS I (Formerly PH 481) (*First Term*)
Prerequisite: MA 251 or MA 483.

A mathematical treatment of the fundamental laws, principles and concepts of classical mechanics including particle kinematics and dynamics, central force motion and scattering, rigid body motion and small oscillations using the La-Grangian formulation. An introduction to Hamiltonian mechanics is included. *2.5 Credit Hours.*

PH 384. INTRODUCTION TO THEORETICAL PHYSICS II (Formerly PH 482) (*Second Term*)
Prerequisite: MA 251 or MA 483.

An intermediate course in electricity and magnetism covering electrostatics, magnetic fields, electromagnetic induction, Maxwell's equations, Poynting vector, electromagnetic properties of material media, physical optics and special relativity to include the field transformation equations. *2.5 Credit Hours.*

PH 484. QUANTUM MECHANICS (*First Term*)
Prerequisite: PH 303 or PH 353.

An introductory course stressing the physical meaning of quantum theory to include: failure of classical theories; de Broglie waves, wave functions and eigenvalue problems; Schroedinger equation; free particle, potential well, harmonic oscillator, hydrogen atom; operators; many electron atoms, Pauli principle. *2.5 Credit Hours.*

PH 486. EXPERIMENTAL PHYSICS (*Either Term*)
Prerequisites: PH 303 or PH 353 and one elective in Physics.

Individual advanced laboratory experiments selected by the student and performed under the supervision of a faculty advisor. Possible experiments include: normal modes of coupled systems, laser optics, Frank-Hertz, electron paramagnetic resonance, Zeeman effect, Mössbauer effect, mass spectroscopy and nuclear events. *2.5 Credit Hours.*

PH 487. NUCLEAR REACTOR THEORY (*Either Term*)
Prerequisite: PH 303 or PH 353.

A review of modern physics pertaining to reactor theory, radiation detection and health physics; neutron moderation; neutron cycle balance in homogeneous and heterogeneous systems; neutron diffusion; critical equation and critical size, short and long term transient effects, and stability. The laboratory portion of the course includes practical exercises in instrumentation and radiation detection; neutron activation and cross section determination; thermal diffusion and Fermi age; flux distribution buckling and critical size of the subcritical reactor. *2.5 Credit Hours.*

PH 488. NUCLEAR PHYSICS (*Second Term*)
Prerequisite: PH 303 or PH 353.

A study of selected topics in nuclear physics to include: properties of the nucleus, radius, binding energy, angular momentum, magnetic moment, a quantum mechanical treatment of alpha decay and the deuteron; nuclear models, and basic nuclear reactions. *2.5 Credit Hours.*

DEPARTMENT OF SOCIAL SCIENCES

Professors: COL G. A. Lincoln (Head of Department) and COL A. A. Jordan, Jr.

Associate Professors: LTCs R. E. Carignan, E. Denton, III, E. R. Heiberg, III; R. H. Nye; MAJ L. D. Olvey.

Assistant Professors: LTCs . L. Morrison, Jr.; MAJs W. S. Barge, J. O. Bradshaw, T. E. Carpenter, III, R. T. Chenoweth, M. J. Collins (USAF), P. M. Dawkins, W. S. deCamp, F. W. Hall, Jr., F. A. Hart, W. L. Hauser, R. W. Hobbs, D. E. Hruby, J. R. Logan, D. G. Mead, J. R. Murphy (USAF), W. E. Odom, R. J. Roller, J. O. B. Sewall, A. A. Smith, W. J. Taylor, Jr., W. G. T. Tuttle, Jr.; CPTs A. E. Fowerbaugh, J. R. Sisson.

Instructors: MAJs J. S. V. Edgar, T. P. Gorman, C. P. Hutton, K. L. Maher, M. Mooradian; CPTs J. L. Abrahamson, R. J. Brown, W. M. Burleson, C. L. Clark, C. A. Endress, R. L. Ernharth, K. J. Fedor, R. O. Freedman, N. W. Frische (USAF), W. Heilerg, R. E. Johnston, W. L. Metzger, J. C. Mumford, F. A. Partlow, W. L. Schwartz, R. M. Weekley, W. M. Summers; 1LTs T. Goggin, W. C. Hendrix, S. K. Smith, B. Villa; Mr. R. Palmer (Fgn Svc Officer).

Standard Courses

SS 201. HISTORY OF EUROPE AND AMERICA: 1500–1870

This course combines a survey of the major developments in the history of Europe since the Renaissance and, by means of a seminar sub-course, a study in depth of one period or problem selected from the historical time-frame of the course. Events in America and in Asia are studies as they relate to European history. The course provides a foundation for further study of the institutions and issues of modern Western civilization. The central thread is political history, to which economic, intellectual, and social developments are linked. *2.5 Credit Hours.*

SS 202. HISTORY OF EUROPE AND AMERICA SINCE 1870

This course combines a survey of the major developments in the history of Europe since 1870 and, by means of one or more seminar sub-courses, a study in depth of particular nations, period, or problems selected from the historical timeframe of the course. As in SS 201, the central thread is political history, to which economic, intellectual, and social developments are linked. Emphasis is on the increasing integration of the western community, its response to totalitarian pressures, and the influence of the Atlantic nations on the development of the contemporary global environment as well as the impact of this environment on that community of nations. *2.5 Credit Hours.*

SS 301. ECONOMIC PRINCIPLES AND PROBLEMS

A survey in basic economic principles providing for the application of these principles to specific problems of public policy in this and following courses. *2.5 Credit Hours.*

SS 302. UNITED STATES GOVERNMENT

A study of the dynamics of U.S. politics, with emphasis on the processes, institutions, and problems of the national government, and including a survey of the basic aspects of state and local government. This course provides a conceptual framework of political science for later courses. It also includes an integrated subcourse in Economics of National Security which is an extension of the public policy problems portion of Social Sciences 301. *2.5 Credit Hours.*

SS 401. COMPARATIVE POLITICAL SYSTEMS: EUROPE AND ASIA

An introduction to the theory of comparative politics followed by study of the political systems of Europe (Great Britain, France, and USSR) and of Asia (China, India, and Japan). Emphasis is given to similarities of political problems and differences in solution by democratic and communist systems, and by modern and developing societies. The subcourse on Asia includes study of the countries' historical backgrounds. *4 Credit Hours.*

SS 407. INTERNATIONAL RELATIONS

An interdisciplinary study of the world environment, building upon previous Social Sciences courses, with particular emphasis upon the nature of the forces changing the relationships among nations in the post-World War II era and on the role of the United States in world affairs. The theories and practices of interstate behavior are studied as well as the basic influences which condition the formulation and execution of U.S. foreign policy. The course terminates with an intensive study of a developing area with emphasis on U.S. policy. The areas studied include Middle East, Africa, Latin America, Southeast Asia. *4 Credit Hours.*

Advanced Courses

SS 451. COMPARATIVE POLITICAL SYSTEMS: EUROPE AND ASIA ADVANCED—CHINA
Prerequisite: Standing in upper half of class in Social Sciences.

This advanced course is open to 60 cadets who stand in the upper half of their class in social sciences and who volunteer for the advanced course in lieu of the standard course. The first third of the course will survey the essential concepts of the standard course, while the latter two-thirds will explore in greater depth the history, economy, culture, political system, and international relations of Communist China. *4 Credit Hours.*

Elective Courses

SS 381 HISTORY OF RUSSIA *(Both Terms)*
Prerequisite: None.

A study of the historical development of the Russian nation and its relations with the Western world, with particular emphasis on the nature of the Russian Revolution, the regime which it produced, and the Communist Bloc as it presents a challenge to the West. *2.5 Credit Hours.*

SS 382. HISTORY OF UNITED STATES FOREIGN RELATIONS *(Both Terms)*
Prerequisite: None.

A study of the history of America's relations with the world with emphasis on the period from the origins of the Spanish-American War to the current super power status. Those relations are examined in detail as the United States evolved from a fiercely isolationist nation to one with massive global commitments. The course focuses on the role of individuals in the formulation of national policy within the framework established by the Constitution, historical precedence and external events. The objectives are to gain a knowledge of the nature, origins, and development of foreign policy since America became a great power, provide a basis for examining and evaluating present policies, and diplomatic actions of the United States, and understand the role played by the armed forces in the formulation and execution of foreign policy. *2.5 Credit Hours.*

SS 383. MIDDLE EASTERN STUDIES (*Second Terms*)
Prerequisite: None.

An introduction to the problems of the contemporary Middle East and North Africa. A brief consideration of the development of the Arab and Ottoman Empires, the growth of Islam, and penetration of the area by European states provides the foundation for an intensive study of the national political goals, social problems, and economic prospects of the present day. *2.5 Credit Hours.*

SS 384. LATIN AMERICAN STUDIES (*Both Terms*)
Prerequisite: None.

A study of the historical and contemporary developments in Latin America. Historically, emphasis is placed upon the traditional cultures, the impact of Europe and the United States, and the emergence and development of the independent states. From this historical base, the dynamics of present-day change are examined in terms of their economic, social-psychological, and political-military aspects. The course concludes with a consideration of regional developments and problems to include United States-Latin American relations and hemisphere security. *2.5 Credit Hours.*

SS 385. COMPARATIVE ECONOMIC SYSTEMS (*First Term*)
Prerequisite: SS 301.

This course studies Capitalism, Socialism and Communism as economic systems. Their history, evolution and application today, are studied with particular emphasis on the American and the Soviet bloc systems. *2.5 Credit Hours.*

SS 386. POLITICAL PHILOSOPHY (*Both Terms*)
Prerequisites: SS 201 and SS 202.

An introduction to the classic writings of Western political thought, emphasizing the emergence of and challenges to the concept of constitutional government and the ethical values and other theory which underlie the political systems of the modern world. The course is concerned with the explanation and the understanding of important political ideas rather than the mechanics of the various political systems. Particular attention is paid to the universal applicability of the writings of the great philosophers and their relationship to the political problems of today. *2.5 Credit Hours.*

SS 387. SEMINAR IN PUBLIC POLICY (*Both Terms*)
Prerequisite: First and Second Classmen and selected Third Classmen by arrangement with the instructor. It is recommended that Second Classmen take the course during the 2d Term.

This seminar affords cadets the opportunity to discuss and analyze in depth current U.S. policy issues. Generally, two issues will be selected each term, on the basis of timeliness, interest areas of cadets, importance, and suitability of research. Illustrative issues are: the American Response to the Changing Communist World, the Future of the American Party System, NATO and the Atlantic Crisis, the Civil Rights Movement, and Congress and Foreign Policy. The course will emphasize independent and group analysis leading to policy recommendations on the issues studied. *2.5 Credit Hours.*

SS 481. SEMINAR IN HISTORY (*Both Terms*)
Prerequisite: SS 201, SS 202. By permission of the instructor only.

A study of theories and methods used in historical analysis of man's developing

institutions and ideas. The cadet reads representative works of eminent historians, studying their use of sources, interpretive philosophies, and styles. He then applies these ideas to an investigation of a suitable historical problem selected from the period of Western history under analysis by the Seminar. *2.5 Credit Hours.*

SS 482. ECONOMICS OF DEFENSE MANAGEMENT (*Second Term*)
Prerequisite: SS 301.

The course is a study of the economic determinants—prices, supply, demand—of decisions made by businesses and people (and now by the military establishment). The analytical methods have already been introduced in the standard economics course. *2.5 Credit Hours.*

SS 483. NATIONAL SECURITY SEMINAR (*Both Terms*)
Prerequisite: SS 201–202, SS 301–302. This course may be taken concurrently with SS 302, and concurrently with SS 301 by the 2d classmen who have had SS 302.

This seminar examines selected major issues affecting the national security of the United States. Prior to studying these issues the student is familiarized with the evolution of U.S. strategy and strategy-making since World War II. The security issues include: Problems of Nuclear Strategy; Civil-Military Relations and the role of the professional soldier; Counterinsurgency; Management for National Security; and Technology and National Security. Visiting authorities, both civilian and military, conduct some classes. The course has included an educational trip to a nongovernmental institution engaged in research on problems of national strategy. *2.5 Credit Hours.*

SS 485. PROBLEMS OF DEVELOPING NATIONS (*Both Terms*)
Prerequisite: SS 201, SS 202, SS 301, SS 302. This course may be taken concurrently with SS 302.

A study of the problems of political modernization, nation-building, and economic development in selected nations of Southeast Asia and Sub-Saharan Africa. The course focuses upon the study of those conditions which are conducive to political stability and economic growth as well as those which tend to give rise to revolutionary change. Such problem areas as the development of nationalist movements, the role of foreign economic assistance, the bases of insurgency, the strategies of local Communist parties and the emerging roles of the military and other institutions are analyzed. Cadets also have opportunities to discuss these developing areas with citizens of the nations concerned and with experts in the field. *2.5 Credit Hours.*

SS 487. SEMINAR IN PUBLIC POLICY (*First Term*)
Prerequisite: SS 387. By permission of the instructor only.

This seminar affords selected cadets the opportunity to research on a continuous basis in selected problems of public policy. *2.5 Credit Hours.*

OFFICE OF MILITARY PSYCHOLOGY AND LEADERSHIP

Director: COL S. H. Hays.

Associate Professor: LTC P. J. Hickey.

Assistant Professors: LTCs W. H. Eisenhart, T. A. Rehm, R. T. Zargan; MAJs D. J. Tobin, H. C. Walters, Jr.

Instructors: MAJs P. M. Bons, J. C. Burris, J. J. Cortez, D. J. Erickson, W. L. Golden, N. S. H. Krawciw, R. M. Macedonia, J. B. Mallonee, R. H. Marcrum, J. E. Martling, R. A. Nadal, Q. C. Snyder, V. B. Sones, N. A. Ste Marie; CPT T. B. Throckmorton.

PL 202. GENERAL PSYCHOLOGY

Prerequisite: None.

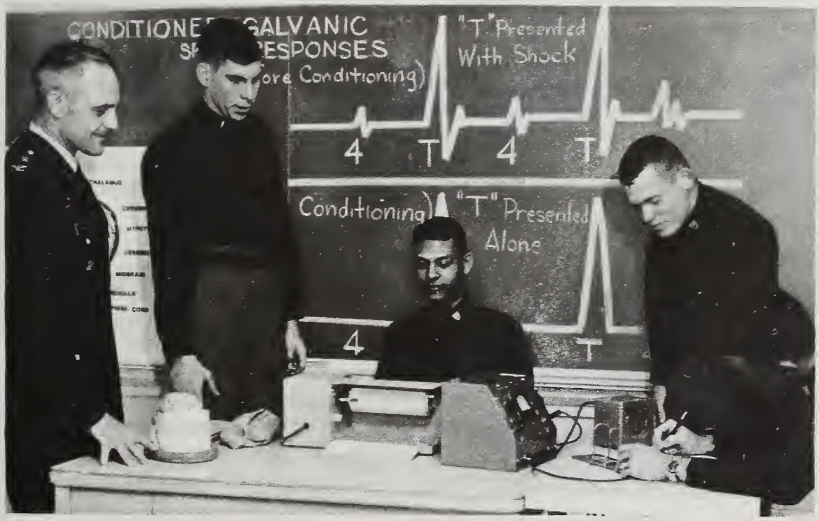
A general psychology course designed to give the cadet a scientific basis for understanding human behavior. Basic concepts of general psychology are studied with emphasis on those concepts which relate to his future role as a military leader. The course considers human development and individual differences, perception, learning, thinking, motivation and emotion, adjustment, personality, social relationships, leadership and applied psychology. *2.5 Credit Hours.*

PL 401. MILITARY LEADERSHIP

Prerequisite: PL 202 or validation.

An interdisciplinary approach to the study of leadership as a phenomenon of human behavior. The course is concerned with a consideration of the behavioral science factors which affect leadership and the process involved in its exercise by military commanders. The concept employed recognizes the moral, philosophical, and behavior foundations of military leadership and views the process as a dynamic interaction involving the leader himself (with his own personality), the group (with its particular characteristics and needs), and the situation (in which the leader and his group are operating).

In classroom exercises the cadet analyzes military leadership situations requiring an appreciation of human relations, group dynamics, and a knowledge



of the functions of military management and personnel management. Other instructional techniques include group discussion, role playing, the use of films, audio tapes and closed-circuit TV and oral and written reports on group and individually assigned projects. Guest seminar moderators noted for their contributions as scholars or practitioners in their field of leadership supplement this classroom instruction, and lectures by prominent military leaders provide practical illustrations of the successful applications of leadership. *2.5 Credit Hours.*

PL 201. METHODS OF INSTRUCTION
Third Class.

A training course in the personal and professional qualifications required of a military instructor. Emphasis is placed on practical application in supervised presentations by each cadet of a military lesson, critiques, impromptu presentations, and a 30-minute outdoor class on a military skill (conducted during second class summer training). Included are theoretical instruction and practical application of the principles of learning and training methods. This course includes preparation, presentation, communication of information and skills, purposes and types of examinations, conduct of critiques, management and supervision of instruction and selection and design of training aids.

PL 481. MANAGERIAL PSYCHOLOGY
Prerequisite: PL 202 or validation.

A course of study dealing with the problems and techniques of management in dealing with people. While the course places emphasis on the industrial organization, military, government, and other institutions are covered as well. The physical structure and psychological climate of the organizations are analyzed as well as special groups, social interaction, and personal adjustment of people. The latter portion of the course requires the student to evaluate several case studies in human relations and in the practical application of previously learned theoretical concepts and principles. A term paper involving some aspect of human relations problems is required. *2.5 Credit Hours.*

PL 482. SOCIOLOGY: SOCIETY AND CULTURE
Prerequisite: PL 202 or validation.

This elective is an introduction to Sociology as a discipline. The objective of the course is to provide the perspective and the basic concepts for the analysis of contemporary societies and cultures—American and others. The structure, function and dynamics of groups, organizations and institutions are examined in terms of social regularities and cultural differences. The course covers socialization, social stratification, ecology, population study, bureaucracy and social change. Material from Sociology and Anthropology is included. *2.5 Credit Hours.*

PL 484. AMERICAN MILITARY INSTITUTIONS AND MANPOWER
Prerequisites: PL 202 (Open to 1st and 2d Class only).

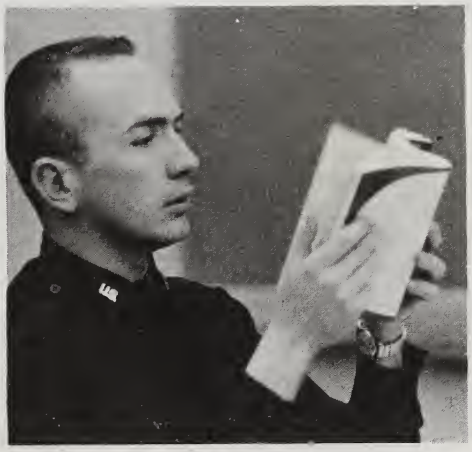
The Armed Forces of the United States are studied against a background of cultural and social change as functional institutions in American society. The interrelationships and impact of their roles, organization and methods on the economic, political and social structures of American democracy are examined in detail. Distinctive cultural features such as techniques of organization and control, status systems, and educational systems are identified. Stress is placed on changes in roles and relationships which result from external forces. Human resources available for military service are analyzed in terms of population

trends, recruitment methods and organizational factors. Related topics include the effects of changing strategies and weapons systems, the influence of scientific research and development, mechanisms and effects of civilian control, management systems, career patterns, and military attitudes and goals. The course is focused on the contemporary military structure and is sociological in orientation. *2.5 Credit Hours.*

PL 485. INDEPENDENT BEHAVIORAL SCIENCE STUDIES

Prerequisites: PL 481, PL 482 or PL 485 and departmental approval.

This course offers the cadet an opportunity to explore in depth a specific topic in behavioral science or personnel management. After an initial phase of group instruction in research methodology and resources, each cadet will be assigned an MP&L instructor as a project monitor and faculty advisor, under whose guidance the cadet will select and define his thesis, explore the background resources available, formulate a research design, and collect material. The cadet will consult with his advisor as desired or directed. Successful completion of the course will include the preparation of a research paper. *2.5 Credit Hours.*



ACADEMIC COMPUTER CENTER

Director and Associate Professor of Computer Science: LTC W. F. Luebbert.
Deputy Director: MAJ J. R. Parker.
Administrative & Management Officer: CPT L. J. Mansi, Jr.
Software & Programming Assistance: CPT J. R. Hannigan, Mr. S. Fischer.
Instructors: MAJ R. A. Leach, CPT E. G. Preston.

The Academic Computer Center is an academic facility, part of the Office of the Dean, supporting all academic departments and activities. The normal functions of the Center include conduct of instruction for cadet classes, as well as USMA Staff and Faculty courses; coordination of the overall Academic Computer Program; operation of the computing facility and reference library; and technical consultation with students and instructors. The Academic Computer Center trains instructors, assists academic departments in the actual conduct of instruction, provides a wide variety of instructor support and augmentation, monitors cadet special projects, and conducts research in the area of computer science education. Over 100,000 cadet program solutions were processed last academic year, and each month this year the number of problems significantly exceeded the corresponding month last year.

The Academic Computer Center is located in a newly constructed facility in Thayer Hall and consists of three modern computers, a communications processor, and three classrooms designed specifically to support cadet instruction. It operates 15 remote terminals (teletypewriters) in a time-sharing system which was locally developed and optimized to allow the computer's problem-solving and data reduction capabilities to be brought into conventional classrooms, laboratories and lecture halls located considerable distances from the Computer Center. These terminals are moved from location to location as instructional needs dictate. When not otherwise in use, they are available to cadets and instructors for individual problem-solving. The Center also uses closed-circuit television and a wide variety of audio-visual aids, including a curve plotter and punched card equipment, to make instruction more effective.

The Center is open for cadet use 96 hours per week. Cadets who desire to operate the equipment individually may progress through a system of qualification which includes the award of appropriate qualification cards (gray or gold) and intermediate apprentice levels. Cadets who hold an unrestricted "Gold" Card (the highest qualification) may use the computer without supervision and when the Academic Computer Center would otherwise be closed.

USMA has an interdisciplinary Academic Computer Program designed to accomplish three major goals which are briefly stated as follows:

1. To acquaint each cadet with the capabilities, limitations, and potential of the computer as an increasingly important military tool.

2. To equip each cadet with the ability to perform complex computations rapidly and accurately through intelligent use of the computer.

3. To increase the effectiveness of instructors through judicious use of the computer in a variety of academic disciplines and in many classroom and laboratory situations.

Most cadet instruction in the operation and programming of digital computers occurs during freshman year in courses taught by the Departments of ES&GS and Mathematics. Each cadet receives instruction in programming computers in

two languages. The first of these is a machine-oriented language specifically designed to support instruction at USMA. The second is a procedure-oriented language called CADETRAN (a dialect of FORTRAN II). It is during freshman year that the cadet learns to operate the computer itself to gain that intellectual impact which results from personal contact with the equipment. In Mathematics, the freshman cadet begins a series of 5 computer problems, which emphasize fundamental mathematical concepts. This basic knowledge is extended through continued computer use in several disciplines. The Department of Physics and Chemistry uses the computer as a data reduction tool. The Department of Ordnance includes comparison of analog and digital computer solutions in its Ordnance Engineering and Management courses. The Departments of Electricity, Mechanics, and Military Art and Engineering encourage cadet computer use. Several elective courses allow cadets with particular aptitude, skill, and desire to explore computer science in depth.

The use of the computer extends into areas outside of the sciences, such as psychology, tactics, and social sciences. For example, computer-trained cadets have programmed judge selection procedure and selection and matching of teams for the National Debate Tournament held annually at West Point. Other cadets have written Social Science term papers on such topics as analysis of voting trends and stock market pattern analysis, using the results of computer analyses of large volumes of data as a starting point in the logical development of their basic thesis.

Major emphasis is given to using the computer as an in-class instructional tool in teaching non-computer subjects.

INSTRUCTIONAL TELEVISION CENTER

Director and Associate Professor: LTC William F. Luebbert.
Deputy Director and Television Operations Officer: MAJ Frank B. Tennant, Jr.

The United States Military Academy has become widely known for its innovations in educational techniques, and its use of educational resources. One of the newest educational tools to become part of the West Point scene is closed-circuit instructional television. The Instructional Television Center, an activity of the Office of the Dean, is located in Thayer Hall on the first floor. At the Military Academy, instructional television is used as an adjunct to the classroom instructor, and the instructors of the various departments are developing many new and original methods of using television in a way that integrates its capabilities into our time-tested methods of instruction.

Facilities of the Instructional Television Center include a modern well-equipped studio and control room. Principal items of equipment include three studio vidicon cameras, three professional video tape recorders, a slide and film chain for projection of 16mm motion pictures and 35mm slides, and the associated technical and test equipment. A distribution system of cables and the necessary amplifiers carry the instructional programs into over 200 classrooms—all of the classrooms in Thayer Hall and Bartlett Hall—and to the Library. Large screen projected television is available in two large auditoriums in Thayer Hall and in two large lecture halls in Bartlett Hall. The distribution system will be extended to Washington Hall, the new gymnasium, the new cadet barracks study rooms, and other new buildings as they are constructed.

As a complement to the studio, which allows the production of professional quality instruction programs, the Center also operates a Candid Classroom, which is designed to permit candid videotaped recordings of classes conducted therein. This room is especially useful for instructor self-critiques and for cadet projects of various types, and the cadets themselves may operate the television equipment in the Candid Classroom.

OFFICE OF RESEARCH

Director of Research: COL John S. Howland.
Deputy Director of Research: LTC James R. Kintz.
Chief, Operations Division: Mr. Claude F. Bridges.
Research Psychologists: CPT Edmund B. Piccolino, Mr. Alexander A. Longo.

The Office of Research, USMA, a part of the Superintendent's special staff, is charged with the responsibility for institutional research projects conducted at the Military Academy. Of prime importance to the office is the systematic program to determine to what extent USMA is uniquely effective in educating and developing young men for careers in the Regular Army. This program includes an appraisal of the new cadets admitted each year in terms of values, interests, and commitment to a profession—a career in the Regular Army. In addition, the impact of United States Military Academy activities and programs on cadet characteristics and behavior is continually assessed with particular emphasis on determining changes in opinions, attitudes, and interests over the four-year period.

The Office of Research provides certain services in support of other USMA offices. Perhaps one of the most important of these services is advice and assistance to officers and cadets involved in research projects. The Office of Research not only provides a source of funding projects, it also provides professional consultant service whereby technical advice and assistance is given in all aspects of research from the design of a project to presentation of a final report. In addition, the Office of Research provides a central library of research done at the Military Academy, acts as a clearing house for research information, and will provide a central data bank of information regarding candidates, cadets, and graduates.

EDUCATIONAL ACTIVITIES

The Military Academy offers varied opportunities for cadets who are interested in exploring fields of academic study on a broader or more intensive basis than is provided in the formal academic curriculum. Seminars, special guest lectures, discussion groups, student conferences, and intercollegiate debates are undertaken on cadet initiative and carried out primarily with cadet effort. The largest and most active organization in this field is the Debate Council and Forum whose members engage in intercollegiate debates and discussions in all parts of the United States during the academic year. This organization also sponsors voluntary seminars on public affairs topics in which cadets express interest.

Student Conference on United States Affairs

Annually since 1949, the United States Military Academy, with the assistance of private financial aid, has sponsored a Student Conference on United States Affairs, known as SCUSA. Outstanding students from more than 100 United States and Canadian colleges and universities gather for a four-day conference in early December with approximately 35 senior individuals from college faculties, business, and government. Meeting in small seminars, the participants discuss major aspects of U.S. National Security Policy and formulate policy recommendations. The Cadet Debate Council and Forum administers these conferences and acts as host.

The purposes of these conferences are (1) to examine and discuss U.S. National Security Policy, (2) to provide an outstanding representation of college students with an appreciation of the complexities of government policy formulation, and (3) to broaden students' contacts with their contemporaries in an academic endeavor.

The principal speakers at the XVI through the XVIII conferences are given below:

SCUSA XVI: 2–5 December 1964

MR. KENNETH T. YOUNG, JR.
President, The Asia Society, Former Ambassador to Thailand
THE HONORABLE ORVILLE L. FREEMAN
Secretary of Agriculture, Former Governor of Minnesota.

SCUSA XVII: 1–4 December 1965

HONORABLE FRANK PACE, JR.
President, The International Executive Service Corps
Former Secretary of the Army

GENERAL MAXWELL D. TAYLOR
Special Consultant to the President
Former Ambassador to Republic of Vietnam
Former Chairman, Joint Chiefs of Staff

SCUSA XVIII: 30 November–3 December 1966

PROFESSOR HENRY A. KISSINGER
Harvard University

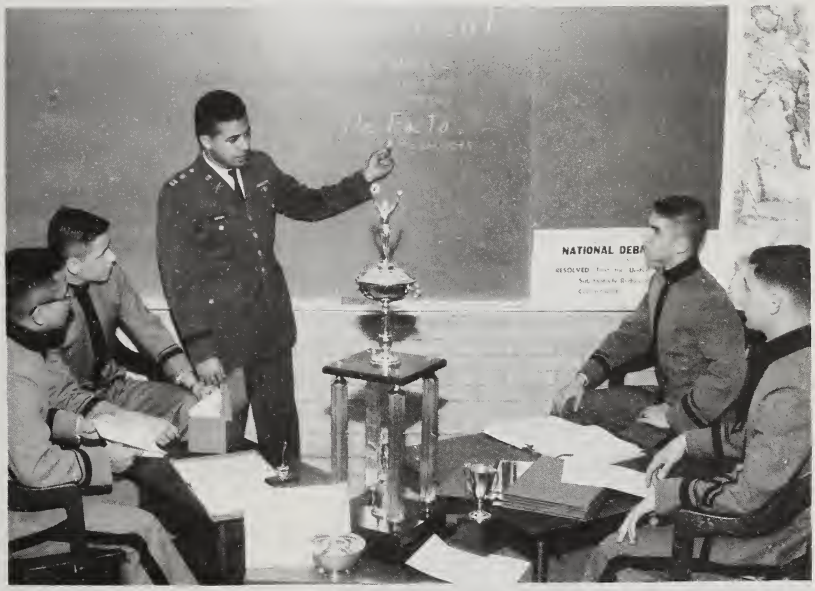
HONORABLE LINCOLN GORDON
Assistant Secretary of State for Latin American Affairs

The Fine Arts Forum

The Fine Arts Forum arranges for numerous trips, generally to New York City, to allow the interested cadet to experience a variety of cultural activities not available at the Military Academy. Examples of these include the opera, ballet, plays, symphonies, and visits to museums and galleries. Often an extra attraction is a visit backstage or a personal tour by a leading artist. A number of activities are also brought to the Academy under the sponsorship of this forum, the Cadet Dialectic Society, or the Great Films program.

West Point Debate Council

The Debate Council, an extracurricular activity within the Debate Council and Forum, sponsors an extensive program affording its



Debate coach assists in case preparation.

members the opportunity to acquire forensic skills in competitive tournament debating with colleges and universities throughout the country. The Debate Council program for a typical year includes: seminars on argumentation and debate, seminars on the substantive issues of the national debate topic, intra-squad practice debating, and varsity and novice intercollegiate competition.

USMA debate teams participate in many of the leading college debate tournaments (32 in 1965–66, involving 300 debates with 156 colleges and universities). Through the consistently sound performance each year of its 15 to 20 debate teams in tournaments throughout the nation, West Point has achieved recognition as one of the leading schools in intercollegiate debating.

West Point Forum

This cadet organization, a part of the Debate Council and Forum, provides the cadet an opportunity to widen his intellectual interests.

It conducts seminars on a variety of topics to prepare cadets to participate in a large number of student conferences and model United Nations assemblies throughout the country. In 1966–67 cadets participated in conferences at such institutions as Miami University of Florida, Dartmouth, the United States Naval Academy, and Princeton and Harvard Universities. The Forum sponsors educational trips each year to the United Nations and to Washington, D.C., to allow cadets to observe at first hand the operations of the United Nations and the major branches of our own Government.

Cadet Participation in Scientific Events

Cadets participate in a number of annual scientific events such as the Eastern Colleges Science Conference. The close proximity of West Point to a large number of governmental, cultural, scientific, industrial, and research activities has enabled the Military Academy to extend classroom discussions and laboratory exercises into "the field" in a highly effective manner through a program of educational trips. Cadets have visited such installations as the Brookhaven National Laboratories, the Nevis Cyclotron Laboratory at Columbia University, Bell Telephone Laboratories, the Research and Development Laboratories at Fort Monmouth, the International Electric Corporation, the Republic Aviation Corporation, the Texaco Laboratories, Charles Pfizer and Company, and Aberdeen Proving Ground.

Counseling and Advising

The Office of the Dean, the Academic Departments, the Department of Tactics, Chaplain, Surgeon, Treasurer, Registrar, and Upper Class Cadets are available at all times to assist and offer guidance to

cadets. The Commandant is responsible for the overall counseling and administration of cadets. He exercises this function directly through Company Tactical Officers of the Department of Tactics, Cadet Officers, the Cadet Hostess, and through referral to the academic counselors in the Office of the Dean, faculty members, Chaplain, Surgeon, or Treasurer. Each Company Tactical Officer is responsible for the administration, training, welfare, and morale of his cadet company. Through daily, personal contact the Tactical Officer is able to provide advice and guidance in overcoming personal problems that do not require professional care. Professional care is provided by the Cadet Chaplains concerning spiritual matters, and by the Surgeon (head of the Military Academy's hospital) for psychological or psychiatric problems. Assistance on social problems and financial matters is available through the Cadet Hostess and the Treasurer, USMA, respectively.

Career counseling is also the responsibility of the Commandant, jointly through the Company Tactical Officer and the Office of Military Instruction. Admissions information is the responsibility of the Director of Admissions and Registrar. The Dean of the Academic Board, assisted by his counseling staff and the faculty, is responsible for advising and counseling cadets on course validation, selection of electives and the scheduling and organizing of an academic program.

Scholarships

Rhodes Scholarships

From 1923, when cadets of USMA first began to compete, to 1966, 48 Rhodes Scholarships have been awarded to Academy graduates who attended Oxford as Army or Air Force officers on active duty.

Elections for Rhodes Scholarships are held every year in December for entrance into Oxford in October of the following year. The scholarships are for a minimum period of two years study; a third year may be awarded if the Rhodes scholar presents a plan of study acceptable to his service and to the Rhodes trustees.

Cadets desiring to compete for a scholarship must be accredited by the Academic Board, which screens them carefully. A Committee of Selection in each State recommends two candidates every year to a District Committee for six States. The District Committees each select four individuals from the candidates selected by the State committees. Candidates may apply either in the State in which they live or in the State in which they have received at least two years of their college education.

The basis of selection is that section of Cecil Rhodes' will in which are mentioned the four groups of desired qualities: (1) literary and scholastic ability and attainments; (2) qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; (3) exhibition of moral force of character and of instincts to lead and to take an interest in his schoolmates; (4) physical vigor as shown by fondness for and success in manly sports.

The selection is not made, however, on any system of averaging up a man's qualifications. The first two groups of qualities are most important, and committees are particularly interested in distinction of intellect and character giving promise of outstanding achievement in later life. Rhodes hoped that the scholar would "esteem the performance of public duties as his highest aim."

Olmsted Scholarships

The George Olmsted Foundation currently awards annually two scholarships to graduates of the Military Academy for two years' study at a foreign university in other than an English speaking country. Officers are considered for scholarships upon completion of a minimum of three years of service. The Foundation makes the

selection from names submitted for consideration to the Department of the Army by the Academic Board. Selection criteria are scholastic, including linguistic ability, and traits of character and leadership demonstrated at West Point and in the military service after graduation. Universities attended by Military Academy graduates under this program have included those of Geneva, Grenoble, Heidelberg, Brussels, Tokyo, Freiburg, Paris, Lyons, Madrid, Bonn, and Sao Paulo.

National Science Foundation Fellowships

Since 1961 cadets have been permitted to compete for National Science Foundation Graduate Fellowships. These fellowships, which are awarded for periods of one to two years, are open to graduates of all accredited institutions. Selection is based on academic records, recommendations regarding each applicant's ability, scores achieved in examinations designed to test scientific aptitude and achievement, and other evidence of potential ability for scientific study or work. In 1962 one cadet was awarded a fellowship and ten cadets received honorable mention; in 1963 five cadets were awarded fellowships and nine cadets received honorable mention; in 1964 five cadets were awarded fellowships and 23 cadets received honorable mention; in 1965 two cadets were awarded fellowships and nine cadets received honorable mention. In 1966 four cadets won the fellowships. Graduate studies may be pursued at a university of the Fellow's choice.

Oak Ridge Institute of Nuclear Studies Fellowships

The U.S. Atomic Energy Commission has established special fellowships in nuclear science and engineering to encourage promising students to undertake graduate studies in these fields at a university of their choice. Selection of fellows is based on academic grades, breadth of science and engineering courses completed, recommendations, Scientific Aptitude Examination results, and career objectives. Of the eight cadet applicants who participated in the national competition during 1964, all eight were awarded a Special Fellowship for graduate study in the nuclear field. Three out of four Cadets were successful in 1965. Four cadets were awarded the Fellowships in 1966.

Distinguished Graduates

Distinguished Graduates of the Military Academy, the top five percent of a class in general order of merit, are guaranteed graduate schooling leading to the Master's degree within their first five years of service. The Distinguished Graduate may elect to go to graduate school directly from West Point or to defer his entry to a later year.

Lecture Program 1966-67

Lectures sponsored by the various activities at the Military Academy are coordinated by the Dean of the Academic Board. In almost every case the Lecture is an integral part of the course of instruction of the attending class or classes.

The following is a representative grouping of lectures presented to the Corps of Cadets under the sponsorship of the Departments of Instruction indicated.

DEPARTMENT OF EARTH, SPACE AND GRAPHIC SCIENCES

Reverend George Bissonnette, Assumption College, Worcester, Massachusetts, "Geography of the USSR".

DEPARTMENT OF ENGLISH

Dr. John D. Rosenberg, Associate Professor of English, Columbia University "Victorian Poets".

Major Gilbert N. Amelio, U.S. Air Force, Randolph AFB, Texas, "The face of Christ".

DEPARTMENT OF FOREIGN LANGUAGES

Lieutenant Colonel J. J. Guegot, French Liaison Officer, Ft. Benning, Ga., "A Glance at the Epoch of Louis XIV".

Dr. Daniel P. Girard, Professor French, Columbia University, "Un Coup d'cel sur l'epoque de Louis XIV."

Professor Wilson Martins, Department of Romance Languages, New York University, "Brazilian Literature".

Mr. Nicholas Fersen, Russian Instructor, Williams College, "The Vlasov Movement".

Oberst I. G. Erich Rother, German Military Attache, "Die Bundeswehr & NATO".

DEPARTMENT OF LAW

Captain Laurence Jaratt, United States Maritime Service, "The Law of the Sea".

Colonel Clarence F. Nelson, United States Mission to the United Nations, "Peace Keeping Operations".

DEPARTMENT OF MATHEMATICS

Dr. J. Stuart Hunter, Professor, Department of Statistics, Princeton University, "Statistics".

DEPARTMENT OF MECHANICS

Professor V. G. Szebehely, Associate Professor Celestial Mechanics, Yale University, "Space Mechanics".

Dr. J. P. DenHartog, Professor of Mechanical Engineering, M. I. T., "Mechanical Vibrations".

Colonel Frank Borman, U.S. Air Force, Member NASA (Astronaut), "American Manned Lunar Landing Program".

DEPARTMENT OF MILITARY ART & ENGINEERING

Dr. Harold T. Parker, Professor of History, Duke University, "Napoleon & the Jena Campaign".

Professor I. B. Holley, Professor of History, Duke University, "The U.S. Army Organization for Counterinsurgency".

Dr. Theodore Ropp, Professor of History, Duke University, "The Military Professional".

DEPARTMENT OF SOCIAL SCIENCES

Lady Barbara Ward Jackson, Author & Commentator, Cambridge, Massachusetts, "The Developing World".

Dr. Samuel P. Huntington, Professor, Harvard University, "U.S. Politics of the Vietnam War".

Mr. Thomas O. Waage, Vice-President, Federal Reserve Bank of New York, "Recent Monetary Policy".

Professor John M. Maki, University of Massachusetts, "Modern Japan".

Professor Neil A. McDonald, Rutgers University, "The Uses of Political Theory".

Dr. John H. Strange, Professor, Duke University, "The Negro in the Metropolis".

Lieutenant Colonel Robert Gard, Military Assistant to Secretary of Defense, Department of Defense, "Decision Making in the Executive Branch".

The Honorable Robert V. Roosa, Brown Brothers & Harriman, New York City, New York, "International Monetary Policy".

The Honorable Solis Horwitz, Assistant Secretary of Defense for Administration, "Decision Making in Department of Defense".

Professor A. A. Said, American University, "Arab Nationalism Today".

Professor Leon Carl Brown, Associate Professor, Oriental Studies, Princeton University, "The U.S. & North Africa".

Mr. William C. Sullivan, Federal Bureau of Invesigation Headquarters, "Communism in the U.S.".

Dr. Edward L. Katzenbach, Jr., Vice-President & General Manager, Education Division, Raytheon Company, Lexington, Massachusetts, "Changes to Military Professionalism".

Professor C. Chute, New York University, "State & Local Government".

The Honorable Salvador Lopez, Philippine Ambassador to United Nations, "U.S.-Philippine Relations in Far East".

Professor Brooks Hays, University of Massachusetts, "Congressional Role in National Security Formulation".

Horst H. Holthoff, 2d Secretary, Embassy of Federal Republic of Germany, "The Role of Germany in the Atlantic Alliance".

Dr. John Plank, Brookings Institute, Washington, D.C., "U.S. Policy & Policy Development in Latin America".

Professor Robert A. Scalapino, University of California, Berkeley, "The Challenge of Communist China".

Mr. Harvey Garn, Department of Commerce, "Use of Economic Analysis in Public Policy Decision Making".

Mr. Robert Blackwell, Reporter, Federal Times; and Lieutenant Colonel Jay B. Durst, SACSA, JSC, DOD; Panel Discussion—"Counterinsurgency & Pacification in South Vietnam".

Colonel Immanuel Klette, Policy Planning, Council, Department of State, "Subversive Aggression in Venezuela".

Professor Raymond G. O'Connor, Head, Department of History, Temple University, "The American Concept of Victory".

Lieutenant General James Gavin, U.S. Army, Retired, "Technology & National Strategy".

DEPARTMENT OF TACTICS

Professor W. J. Toth, Assistant Professor, Center for Safety Education, New York University, "Defensive Driving".

OFFICE OF MILITARY PSYCHOLOGY & LEADERSHIP

Dr. R. L. Frye, Professor of Psychology, Memphis State University, "The Appointed Leader".

Dean Emanuel T. Weiler, School of Business Administration, Purdue University, "Human Relations & Management".

Dr. Morris Janowitz, Professor of Psychology, University of Chicago, "The Military Leader in Today's Society".

Scott Carpenter, Aquanaut; Dr. Ronald Radloff, Head Navy Medical Research Institute, Bethesda, Maryland; Dr. James W. Miller, Head Office Naval Research, Washington, D.C.; Symposium: "Man in an Underseas Environment".

Dr. Reuben S. Nathan, Director, Fairfield Institute for Political Psychology & International Communications, Reading, Connecticut, "Psychological Warfare".

Mr. Albert D. Biderman, Senior Research Associate, Bureau of Social Science Research, Washington, D.C., "Military Family & Community".

Major General Harry W. O. Kinnard, D/ACS for Force Development, Department of the Army, "The Leadership Challenge".

OFFICE OF PHYSICAL EDUCATION

Dr. Warren R. Guild, Peter Bent Brigham Hospital, Harvard University "Physical Activity & Leadership".

Dr. Paul Dudley White, Cardiologist, Boston, Massachusetts, "The Heart & Exercise".

OFFICE OF MILITARY INSTRUCTION

Captain Downing, CI Committee, Bde & Bn Ops Department, USAIS, Fort Benning, Georgia, "Personal Experiences of a Company Commander in Vietnam".

The Library

THE LIBRARY

Librarian, USMA: Mr. Egon A. Weiss
Assistant Librarian: Mr. William G. Kerr

Chief, Readers' Services Division: Miss Ann K. Harlow
Reference Librarians: Miss Martha Earl (Periodicals)
Miss Irene Feith (Govt. Documents)
Mr. James E. Pearson (Military History)
Miss June Rosenhaupt (Science)
Mrs. Marilyn Smith (Bibliography)
Mr. Stanley Worden (Audio-Visual)

Chief, Special Collections Division: Mr. J. Thomas Russell
Archivist: Mr. Joseph M. O'Donnell
Assistant Archivist: Mr. Kenneth Rapp
Catalog Librarian: Mrs. Darla Daggit

Chief, Technical Services and Acquisitions: Mr. James H. Conway
Order Librarian: Miss Catherine T. McGuinn
Catalog Librarians: Mr. Pingkun Lee
Miss Anna E. Pierce
Mrs. Donna M. Spaulding
Miss Miriam E. Thompson
Miss Marion B. Wellar

The library book collection contains approximately 260,000 volumes. The library building has a storage capacity for 500,000 volumes and provides seating for over 1,000 readers. Current subscriptions include 1,100 periodicals and 40 newspapers, domestic and foreign. Microfilm and microcard readers and printers are available in sufficient number to make possible effective use of the library's expanding microfilm holdings. The audio-visual resources include approximately 3,000 disc records and tapes of linguistic materials, drama, poetry, classical and popular music. Audio booths are equipped for stereophonic listening and recording. In addition, visual materials are available in form of prints, slides, drawings and mounted and unmounted pictures.

The library is designated a partial depository for the publications of the United States Government. United Nations, NATO, SEATO and regional publications are housed in the documents room of the library.

The library book collection represents the first federal library and antedates the founding of the Academy in 1802 by almost a quarter of a century. The first substantial acquisitions for the library were made between 1815 and 1817 when Major Sylvanus Thayer, Superintendent USMA, 1817–1833 on an official journey to Europe, was authorized by Secretary of War James Monroe to purchase landmark texts in the arts and sciences. Major Thayer obtained about

1,000 volumes which formed the basis for early engineering education in the United States.

The present library resources are similar to those of a liberal arts college and reflect considerable strength in the mathematical, scientific, and technical subjects. The library's extensive holdings in the areas of military art, history and technology have established its reputation as an important military research library.

The USMA Archives maintains cadet and the Military Academy's administrative records. The library's Special Collections include extensive manuscript and archival holdings which are concerned primarily, though by no means exclusively, with the history of the United States Army, the Military Academy and persons of the military profession. The collections of early American military art imprints is unique.

Cadets have free access to the library stack areas; oral and written instructions guide them in the use of catalogs, bibliographies and other reference resources. The facilities of the library are also available to individuals engaged in research. During the Academic Year the library is open from 7:00 A.M. on weekdays and from 2:00 P.M. to 10:00 P.M. Sundays. The Special Collections Division, including the USMA Archives, is open from 8:00 A.M. to 4:30 P.M. Monday through Friday.

THE MUSEUM

Director: Mr. Richard E. Kuehne,
Curator of History: Mr. Gerald C. Stowe,
Curator of Design: Mr. Ray W. Moniz,
Exhibits Specialist: Mr. James H. Kinsley, Jr.
Museum Specialist: Mr. Robert W. Fisch
Museum Technician: Mr. Philip M. Cavanaugh

The West Point Museum is located in Thayer Hall, occupying the first and second floors of the southwest portion of this academic building. Its galleries and special displays are open without charge to the public throughout the year, every day of the week, from 10:30 a.m. to 4:30 p.m. The Museum is closed only on Christmas and New Year's Day.

Adjacent to the public galleries are the storage and research rooms maintained by the Museum to carry out its primary duty as a college museum by supporting the academic and military education of cadets of the Military Academy. To this end it maintains a continuous series of changing exhibits in cadet areas, arranges lectures and demonstrations, and opens its collections for loans to instructors and cadets. To this end also it maintains a considerable display of

portraits and paintings, battle flags and other exhibits in various buildings on the post. Some of these paintings and flags can be seen by the public in the Library, the Cadet Chapel, and in Grant Hall.

The West Point Museum was established in 1854 but its collections actually date back to 1777. After the Battle of Saratoga in October of that year, much of the ordnance captured from the British was sent to West Point. A little later, part of the famous Great Chain stretched across the Hudson at West Point to bar navigation of the river to British men-of-war was stored here.

Throughout the first half of the 19th century the custom of sending trophies of war and objects of national historic interest to the Military Academy was maintained. In 1843, for example, the Secretary of the Treasury presented West Point with a brass culverin 6 pounder that had been given to the Continental Congress by Lafayette. After the close of the Mexican War in 1847, Gen. Winfield Scott sent large numbers of captured flags, cannon, and other war trophies to the Military Academy.

In 1848, the Secretary of War formally directed in the name of the President that West Point be the "depository of the trophies of the successful victory of our arms in Mexico." The authorities realized that permanent provision was needed for the ever-growing collections, and in 1854 they officially created the Ordnance and Artillery Museum, and established it on the third floor of the Academy, a

building erected in 1838 on the site of the present East Cadet Barracks. Custodianship of relics, however, was not the new museum's only mission; for most of the next century it served as the laboratory for cadet instruction under the Department of Ordnance.

In 1909 the Museum was moved to the Administration Building where it remained until 1958. It was removed from the Department of Ordnance in 1948 and placed on an independent status. A full-time director was appointed in 1949 and given a professional staff.

The West Point Museum has probably the largest collection of military items in the Western Hemisphere. Unlike most military museums the story it tells is not confined to a national scene. One gallery is devoted to the development of military institutions and the art of war from the days of the Romans until the present; while others deal with ordnance, logistics, medals and decorations and kindred aspects of the military history of the Western World. The visitor is introduced to the important developments in tactics, to the Great Captains of History, and to the everyday life of the soldier. He is given to understand something of the impact on warfare of such historic events as the Industrial Revolution and nuclear fission.

The visitor's understanding of such matters is heightened by an extensive use of dioramas and full scale models. The visitor can, for example, stand behind a palisade of the days of the Indian Wars in America, or walk through a portion of a World War I trench. He can view episodes in important battles from Cynoscephalae in the year 197 B.C. to Gettysburg of 1863. In keeping with developments in other American museums, the West Point Museum has endeavored to fulfill its historical mission by treating, in part at least, with intangible cultural concepts and movements as well as with tangible objects.

Military Programs

MISSION

To develop the qualities and attributes of leadership with emphasis on character as exemplified by integrity, morality, discipline and a strong sense of duty and responsibility.

To provide a broad basic military education.

To develop high standards of physical fitness.

To instill the motivation essential to the profession of arms and to provide orientation for a career in the United States Army.

Military instruction concentrates on the fundamental concepts of tactics, study of leadership techniques, training in physical education, and indoctrination in career planning and motivation. It provides study, practice and orientation in the history, materiel, methods, and techniques of the Army and the other services of the Armed Forces of the United States. With this background the graduate has the foundation necessary for his progressive and continued development throughout his career as an officer of the Regular Army.

	Page
Typical Daily Schedule	*90*
Corps of Cadets	*91*
Organization	*91*
Pay and Allowances	*92*
Appointment Upon Graduation	*92*
Aptitude for the Service	*92*
Department of Tactics	*94*
Offices of Instruction	*94*

TYPICAL DAILY SCHEDULE

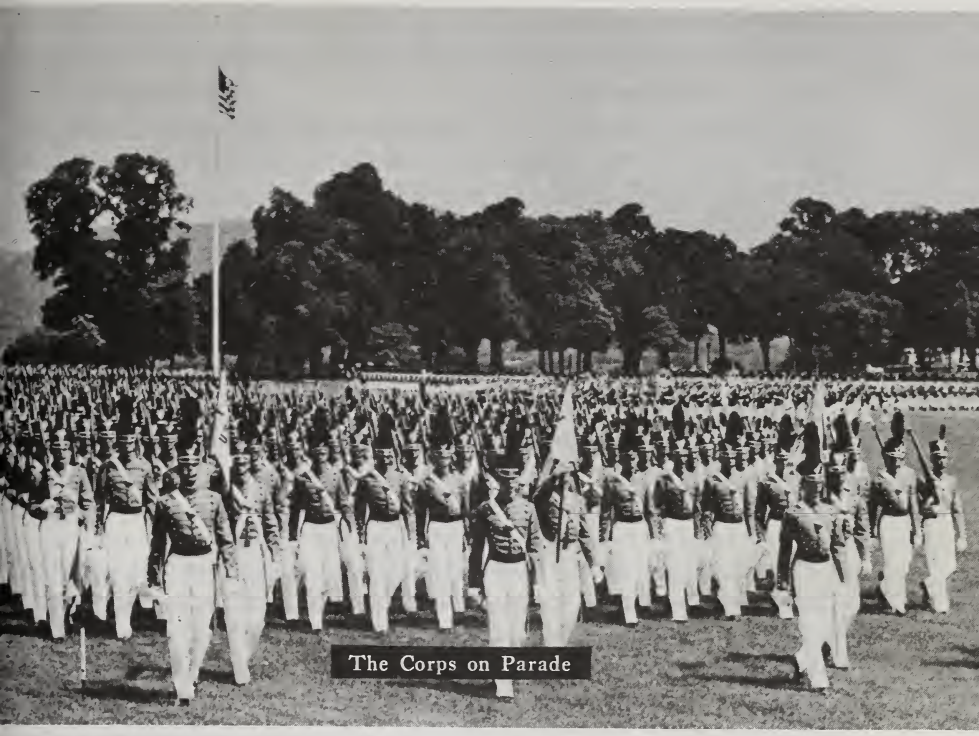
Morning:

6:00	Reveille
6:30- 7:10	Breakfast
7:45- 9:00	Class
9:00-10:30	Study time
10:30-11:50	Class
12:10-12:50	Dinner

Afternoon:

1:05- 2:05	Class or study
2:15- 3:15	Class or study
3:35- 4:50	Intramural or intercollegiate athletics
4:50- 6:30	Study time, parades, intercollegiate athletics or extracurricular activities
6:30- 7:15	Supper
7:20- 9:35	Study time
10:00	Taps. Late lights authorized for study purposes.

The schedule shown above is a typical daily schedule for a cadet during the academic year, September through May. Cadets also attend classes on Saturday morning. During the summer months, June through July, cadets take leave for approximately one month and devote the remaining time to military training.



The Corps on Parade

THE UNITED STATES CORPS OF CADETS

Organization

The student body at West Point is called the United States Corps of Cadets. The approximately 3,400 cadets of the Corps are organized into a brigade of four regiments. A cadet regiment consists of two battalions containing four companies, for a total of 32 companies in the brigade. Cadets of all four classes are assigned to each company, giving each company a strength of approximately 105 cadets.

The officer and senior noncommissioned officer positions within the cadet brigade are filled by cadets selected from the First (senior) Class. In command of the brigade is the Cadet Brigade Commander (Cadet First Captain) who has a staff consisting of a Brigade Executive Officer, a Brigade Adjutant, a Brigade Operations Officer, a Brigade Supply Officer, and a Brigade Activities Officer. The four cadet regimental commanders and eight cadet battalion commanders have staffs similar to that of the Brigade Commander. A cadet

company commander is in charge of each company with subordinate cadet officers and noncommissioned officers in charge of smaller units.

Pay and Allowances

Cadets are members of the Regular Army and receive one-half of the basic pay of a Second Lieutenant with under two cumulative years' service. This, under current pay rate, is $151.95 per month, from which they must pay for their uniforms, textbooks, and incidentals. Quarters, rations, and medical care are provided. The pay and allowances received are adequate to cover all expenses.

Appointment Upon Graduation

When a cadet has completed the course of instruction and meets required standards, he is, upon graduation, appointed a Second Lieutenant in the Regular Army of the United States.

APTITUDE FOR THE SERVICE

The Aptitude for the Service System functions in accord with the basic responsibility of the Academy to produce officer leaders for the Armed Forces. The system assists in the maximum development of the leadership capabilities of each cadet and insures that graduates meet the standards required by the Army. The procedures of the system provide for evaluation of the leadership potential of each cadet, counseling and guidance in those areas in which any weakness is detected, and separation of any cadet who proves incapable of achieving the required standard of leadership.

The evaluation of cadet leadership is accomplished primarily through a program of ratings by officers and cadets. Underclass cadets are rated semi-annually in November and April. The First Class is rated annually. Each cadet rates all cadets in his company who are in his class or lower classes. The ratings are made by arranging the cadets in each class within the company in order of merit based on observation of leadership ability.

In addition to the ratings by other cadets, each cadet is similarly rated by his Company Tactical Officer. The rating by the Tactical Officer is an extremely important one since this officer has been carefully selected for his job based on his proven leadership ability. It is he who has studied the manner of performance of each cadet in the company and has counseled and advised them.

A relative standing in Aptitude for the Service for each cadet is established by mathematically combining the ratings of the Tactical Officer and cadets. The cadet standings are not published, but the cadet and his parents are informed of his general ranking within the

class. The objective ratings are supplemented in certain instances by descriptive comments regarding performance of specific duties and overall potential.

The Tactical Officer plays a key role in the counseling and guidance phase of the system. He conducts a series of interviews with each cadet in which he discusses any observed shortcomings, along with their probable cause, and counsels him in the means of improvement.

If over an extended period of time the cadet appears incapable of overcoming his deficiency and attaining the leadership standards required, his records are carefully studied by a board of senior officers of the Department of Tactics. The board interviews the cadet and such other cadets and officers as necessary for a thorough evaluation of the case.

The board may recommend that a cadet be declared proficient or deficient. The Commandant reviews the proceedings of the Aptitude Board and refers those cases involving deficiency to the Superintendent for action by the Academic Board where they are handled in the same manner as deficiency in an academic subject. A cadet found deficient in Aptitude for the Service by the Academic Board may be placed in a conditioned status until the next rating or he may be separated. All cases involving separation are referred to the Department of the Army for final approval.

Deficiency in Aptitude for the Service does not mean that a young man is unsuited for a successful career in life. It does mean that in the considered opinion of his officer supervisors and his fellow cadets he is not suited for a career as an officer of the Army.

DEPARTMENT OF TACTICS

Commandant of Cadets: Brigadier General R. P. Scott

Aide-de-Camp: 1st Lieutenant R. I. Paske

Deputy Commandant: Colonel J. W. Morris

Brigade Staff: S1: Lt Colonel R. G. VanderMeer
Operations Officer: Lt Colonel J. C. Donovan
S4: Lt Colonel R. A. Shackleton
Cadet Activities Officer: Lt Colonel D. D. Peifer

Commanding Officer, First Regiment: Colonel W. J. Love

Commanding Officer, Second Regiment: Colonel A. J. Hughes

Commanding Officer, Third Regiment: Colonel A. M. Haig

Commanding Officer, Fourth Regiment: Colonel C. M. Simpson

OFFICES OF INSTRUCTION

OFFICE OF MILITARY INSTRUCTION

Director: COL H. F. T. Hoffman, Jr., Deputy Director: LTC R. C. Diehl

Career Branch: Chief: LTC J. D. Foldberg; Sr. Armor Instr.; MAJ J. Mason; Sr. Arty. Instr.: MAJ J. H. Oakes; Sr. Engr. Instr.: MAJ T. G. Horst; Sr. Inf. Instr.: MAJ G. G. Chikalla; Sr. Signal Instr: MAJ W. D. Renner Instructors: MAJ R. E. Thomas; MAJ C. A. Teague; CPT J. W. Hutchison

Military Science Branch: Chief: MAJ R. A. Rachek; Instructors: MAJ M. K. Sheridan, USMC; MAJ J. D. deCordova, British Army; MAJ H. D. Penzler; MAJ R. G. Moscatelli; MAJ R. T. Hatcher; MAJ J. W. Ray; MAJ A. M. Harris; CPT D. R. Davis.

Plans Branch: Plans Officer: MAJ W. T. Parks; Asst Plans Officer: MAJ R. E. Conroy.

FOURTH CLASS MILITARY INSTRUCTION

Summer

FOURTH CLASS SUMMER TRAINING

The summer period consists of basic military training in preparation for military life and orientation and indoctrination in duty and honor. The period in New Cadet Barracks is one of intensive fundamental military training to include qualification with the U. S. Army rifle and basic individual training designed to prepare the new cadet to take his place in the Corps when it reassembles late in August. *7.5 Weeks. Ungraded.*

Academic Year

MILITARY SCIENCE I

MI 101. FUNDAMENTALS OF MILITARY SCIENCE

Instruction in tactical principles as applied to platoon level operations to include military organization, small unit tactics, and troop leading procedures. *.5 Credit Hour.*

MI 102. MAP READING

Instruction in the basic techniques of map reading. *1 Credit Hour.*

MI 105. MILITARY HERITAGE

Instruction designed to develop in the cadet an appreciation of the history and traditions of the profession of arms and to instill a pride in that profession, and secondarily, to broaden his cultural background in military art. *1 Credit Hour.*

CAREER TRAINING

MI 103. CAREER I

Orientation on the four year military training program; combat and service orientations to broaden the military background of the Fourth Classman. *Ungraded.*

THIRD CLASS MILITARY INSTRUCTION

Summer

THIRD CLASS SUMMER TRAINING

To enhance solider skills in adjustment of indirect fire, marches, fieldcraft, communications, land navigation, first aid, mountaineering, hand to hand combat, survival and individual protective measures against chemical, biological and radiological attacks; to provide familiarity with the mission, organization and employment of the infantry, tank and armored cavalry platoons, to include firing of weapons organic to the maneuver battalion and small unit tactics at squad, section and platoon level in both daylight and night operations; to provide orientation on the combat support role of the Field Artillery Battery, the Combat Engineer Company, and the Communications Platoon; to provide orientation on the mission and operations of the U. S. Army Special Forces; to provide high standards of physical conditioning, appearance, discipline, self-confidence and esprit; to provide leadership experience through troop leading in a combat environment; and to provide complete understanding of the individual moral obligations of a member of the U. S. Army. *7.5 Weeks. Ungraded.*

Academic Year

MILITARY SCIENCE II

MI 201. FUNDAMENTALS OF MILITARY SCIENCE

Instruction in tactics as applied to company and Combined Arms Team level operations to include organization for combat, offense, defense, and troop leading procedures. *1.5 Credit Hours.*

CAREER TRAINING

MI 203. CAREER II

Combat and service orientations to broaden the military background of the Third Classman. *Ungraded.*

SECOND CLASS MILITARY INSTRUCTION

Summer

SECOND CLASS SUMMER TRAINING

(1) A 2½ weeks period during which time the cadet receives orientation on the roles, missions, and organization of other services; practical application of methods-of-instruction training to include physical training, instructor techniques, small arms refresher training, and a review of map reading techniques.

(2) One-month duty as a platoon leader with a combat unit of the U. S. Army, or as a squad leader during New Cadet Barracks. *Ungraded.*

Academic Year

MILITARY SCIENCE III

MI 301. FUNDAMENTALS OF MILITARY SCIENCE

Tactical instruction in the organization and basic principles of offensive and defensive combat employed by the ROAD Battalion and Combined Arms Task Force. *1.5 Credit Hours.*

MI 302. FUNDAMENTALS OF MILITARY SCIENCE

Instruction in the basic principles of employing the ROAD Battalion Combined Arms Task Force in special operations on the nuclear and non-nuclear battlefield to include airborne, airmobile, and river crossing operations. *1 Credit Hour.*

CAREER TRAINING

MI 304. CAREER III

An introduction to career planning to include the challenge of the profession of arms, career benefits, and branch selection considerations. *Ungraded.*

FIRST CLASS MILITARY INSTRUCTION

Summer

FIRST CLASS SUMMER TRAINING

(1) To provide an orientation on the roles, tactics, techniques, equipment, and new developments in Infantry, Armor, Artillery, Signal, and Engineers through a two and one-half week orientation trip to selected military posts.

(2) One-month duty either as a platoon leader with a combat unit of the U. S. Army for cadets who did not receive this type training in Second Class Year, or at command and staff levels during New Cadet Barracks or Camp Buckner. *Ungraded.*

Academic Year

MILITARY SCIENCE IV

MI 401. THE U. S. ARMY IN THE COLD WAR

Instruction in the roles, missions, and current employment of the Army in the Internal Defense/Development Environment, with emphasis on counter-guerrilla operations. *1 Credit Hour.*

CAREER TRAINING

MI 400. CAREER IV

Guidance on personal affairs and career planning designed to assist in making the transition from cadet to junior officer. To prepare the cadet for his immediate decisions concerning branch selection, uniforms, automobile purchasing, travel, and the first duty station. *Ungraded.*

MI 402. BRANCH TRAINING

General orientation on the duties of a junior officer in those subjects which are not related to a particular branch. Branch-oriented instruction designed to assist in preparing the cadet to assume the duties of a junior officer in his first unit. *5 Credit Hours.*

OFFICE OF PHYSICAL EDUCATION

Professor and Director: COL F. J. Kobes, Jr.
Deputy Director: LTC W. R. Gossett.
S1: MAJ B. B. McDonough.
Coordinator of Instruction: MAJ W. J. Weafer.
S4: LTC R. J. Herte, Jr.
Bldg. & Grds: MAJ W. D. Mead; LT S. G. Truesdell.
Associate Directors: Dr. L. O. Appleton, Mr. J. B. Kress, Mr. H. J. Kroeten, Mr. R. E. Sorge.
Assistant Directors: Messrs. L. A. Alitz, W. F. Lewis, G. W. Linck, J. M. Palone, M. A. Johnson.
Instructors: MAJs J. L. Anderson, J. J. Burcham, M. A. Clapp, R. Degen, C. J. Garvey, C. R. Johnson, T. J. Mortensen, R. G. Zeigler; CPTs R. E. Clarke, O. L. Langford, M. D. Isacco, LT's H. A. Friedman, D. M. Parker, G. H. Williams, K. R. Stuhlmuller.

Physical Education courses are designed to increase muscular strength, power, endurance, cardiovascular endurance, fundamental coordination, balance and flexibility; to enhance mental health and efficiency; and to develop the personal requisites necessary for military effectiveness and leadership.

Standard Courses

PE 101–102. FOUNDATIONS IN PHYSICAL EDUCATION

This course emphasizes the development of basic physical ability through instructional participation in boxing, gymnastics, swimming and wrestling interspersed with lectures on applied physiology. Instruction is provided in the carryover sports of golf and tennis. Accelerated students participate in handball and squash. Standards of physical performance must be met. *3 Credit Hours.*

PE 201–202. SPORTS ORIENTATION

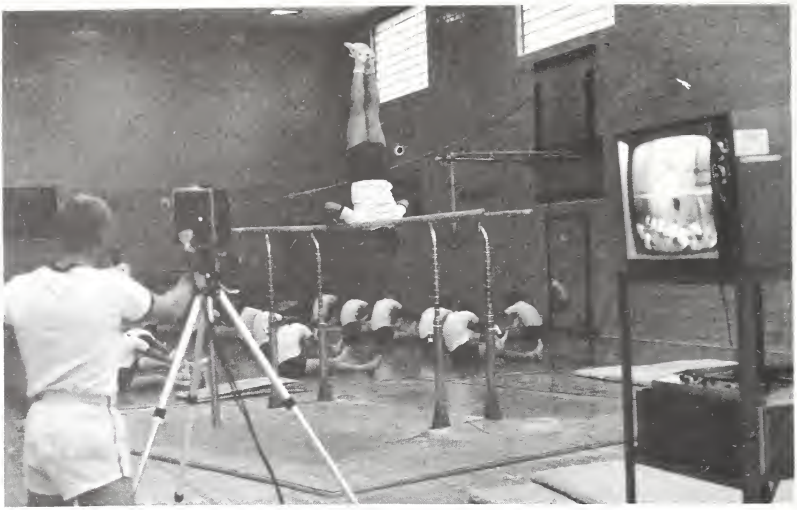
The objective of this course is to provide basic instruction in carryover sports skills, to improve physical development and to prepare for leadership in physical training. It includes instruction and experience in conducting conditioning exercises and allied physical training activities. Standards of physical performance must be met. *1.5 Credit Hours.*

PE 301–302. SPORTS LEADERSHIP

This course places emphasis on leadership instruction and experience. Further instruction is given in sports skills, instructor preparation, coaching techinques and athletic coaching experiences. Standards of physical performance must be met. *1.5 Credit Hours.*

PE 401–402. ADVANCED SPORTS LEADERSHIP AND ATHLETIC SKILLS

The objective of this course is the development of instructor and leadership training through the administration of third and fourth class summer physical training program. Instruction for the further expansion of the individual repertory of individual and team sports is provided. Emphasis is placed on carryover athletic skills which promote physical fitness. Standards of physical performance must be met. *1 Credit Hour.*



39
19

Additional Courses

INDIVIDUAL INSTRUCTION

Special program of instruction in weight control, reconditioning, basic swimming, posture, corrective exercise and physical conditioning to assist those who experience difficulty in achieving minimum standards of proficiency. Open to all classes.

INTRAMURAL ATHLETIC PARTICIPATION

The intramural athletic program is scheduled in three seasons, fall, winter, and spring. Cadets not on intercollegiate teams are required to participate under PE 101–102, 201–202, 301–302, and 401–402. The program consists of nineteen sports consistent with physical education objectives to provide broad sports experience, to promote physical activity and to provide leadership experience in athletics.

ANNUAL PHYSICAL FITNESS TESTS

Physical Fitness Tests, Physical Ability Tests, Obstacle Course Runs and Physical Combat Proficiency Tests are conducted in the fall and spring of each year. Performances are graded under PE 101–102, 201–202, 301–302, and 401–402.

Awards and Distinctions

Distinguished Cadets

In June of every year those cadets on the general merit roll of each class and on the graduating merit roll whose records show they have met the requirements set by the Academic Board are classed as "Distinguished." Distinguished cadets wear a five-pointed star, three-quarters of an inch in diameter, on each side of the collar of the dress coat and the full dress coat. The star is worn for one year by cadets who were distinguished in the work of the Second, Third, or Fourth Class year.

Individual Academic Awards

1. MILITARY ORDER OF FOREIGN WARS OF THE UNITED STATES AWARD (1929). A wrist watch given by the

National Commandery, Military Order of Foreign Wars of the United States to the graduating cadet with highest rating in First Class course in social sciences.

2. DAUGHTERS OF THE AMERICAN REVOLUTION AWARD (1930). A portable typewriter given by the National Society, Daughters of the American Revolution to the graduating cadet with the highest rating in mechanics of fluids.

3. UNITED DAUGHTERS OF THE CONFEDERACY AWARD (1931). The Robert E. Lee Saber given by the United Daughters of the Confederacy to the graduating cadet with the highest rating in mathematics.

4. THE U.S. GRANT AWARD (1932). A wrist watch given by the National Woman's Relief Corps, Auxiliary to the Grand Army of the Republic, Inc., to the graduating cadet with the highest rating in engineering fundamentals.

5. COLONIAL DAUGHTERS OF THE SEVENTEENTH CENTURY AWARD (1934). A set of books given by the National Society, Colonial Daughters of the Seventeenth Century, to the graduating cadet with the highest rating in English.

6. AMERICAN LEGION AWARD (1935). A stereo-phonograph given by the National Organization of the American Legion to the graduating cadet with the highest rating in chemistry.

7. STEUBEN SOCIETY OF AMERICA AWARD (1936). A wrist watch given by the Steuben Society of America to the graduating cadet with the highest rating in German.

8. VETERANS OF FOREIGN WARS OF THE UNITED STATES AWARD (1937). A camera given by the Veterans of Foreign Wars of the United States to the graduating cadet with the highest rating in physics.

9. LADIES AUXILIARY OF THE VETERANS OF FOREIGN WARS OF THE UNITED STATES AWARD (1939). A pair of binoculars given by the Ladies Auxiliary of the Veterans of Foreign Wars of the United States to the graduating cadet with the highest rating in Fourth Class English.

10. AMERICAN BAR ASSOCIATION AWARD (1941). A set of books given by the American Bar Association to the graduating cadet with the highest rating in law.

11. GENERAL WILLIAM A. MITCHELL AWARD (1942). A set of books given by Mrs. William A. Mitchell in memory of General William A. Mitchell, USMA 1902, to the graduating cadet with the highest rating in military engineering and military history.

12. DAUGHTERS OF FOUNDERS AND PATRIOTS OF AMERICA AWARD (1942). A wrist watch given by the National

Society, Daughters of Founders and Patriots of America, to the graduating cadet with the highest rating in Portuguese.

13. ARMED FORCES COMMUNICATIONS AND ELECTRONICS AWARD (1948). A transistor radio given by the Armed Forces Communications and Electronics Association to the graduating cadet with the highest rating in electricity.

14. THE CLASS OF 1930 AWARD (1954). A silver bowl presented in the name of the late Edgar Bromberger to the graduating cadet with the highest rating in the Second Class course in social sciences.

15. THE COLONEL JAMES L. WALSH MEMORIAL AWARD (1956). A rifle presented in the name of the American Ordnance Association to the graduating cadet with the highest rating in ordnance engineering.

16. THE LESLIE R. GROVES AWARD (1957). A silver tray presented in behalf of the Association of Graduates to the graduating cadet with the highest rating in nuclear physics.

17. THE ENVIRONMENT AWARD (1958). A wrist watch awarded by friends of West Point to the graduating cadet with the highest rating in Environment.

18. THE CLIFTON CARROLL CARTER AWARD (1962). A pistol presented in behalf of the Carter family as a memorial to the late Brig. Gen. Clifton Carroll Carter, USMA 1899, to the graduating cadet with the highest rating in Second Class mechanics of solids.

19. SONS OF THE AMERICAN REVOLUTION AWARD (1962). A pistol given by the National Society of the Sons of the American Revolution to the graduating cadet with the highest rating in advanced engineering fundamentals.

20. DAUGHTERS OF THE UNITED STATES ARMY AWARD (1962). A silver cigarette box given by the Daughters of the United States Army to the graduating cadet with the highest rating in advanced chemistry.

21. THE BENJAMIN KAUFMAN AWARD (1963). A set of books presented in the name of the National Ladies Auxiliary, Jewish War Veterans of the United States of America, in honor of Mr. Banjamin Kaufman, winner of World War I Medal of Honor, to the graduating cadet with the highest rating in humanities.

22. THE ORDER OF LAFAYETTE INC., AWARD (1964). A plaque given by the Order of Lafayette Inc., to the cadet with the highest rating in French.

23. DAUGHTERS OF THE AMERICAN COLONISTS (1964). A silver tray given by the National Society, Daughters of the American Colonists to the graduating cadet with the highest rating in Spanish.

24. THE HERMAN BEUKEMA MEMORIAL AWARD (1965). A silver pitcher presented in the name of the Beukema family and the Military Education Foundation to the graduating cadet for excellence in modern history.

25. THE BRIG. GEN. GERALD A. COUNTS MEMORIAL AWARD (1966). A silver tray presented in the name of Mrs. Gerald A. Counts and the John M. Minor family to the graduating cadet with the highest rating in advanced physics.

26. THE COLONEL PHILIP MATHEWS MEMORIAL AWARD (1966). A silver bowl presented in the name of Miss Ann I. Mathews as a memorial to her late brother, to the graduating cadet for the highest rating in Russian.

27. THE BRIG. GEN. CHARLES J. BARRETT MEMORIAL AWARD (1966). A wrist watch presented as a memorial to the late Gen. Barrett to the graduating cadet with the highest rating in advanced foreign language study.

Individual Military Awards

THE KNOX TROPHY (1910). A silver cup presented by the Sons of the Revolution in the State of New York to the cadet with the highest rating in military efficiency.

CHARLES G. DAWES AWARD (1919). The Pershing Sword, given in the name of the late Brig. Gen. Charles G. Dawes to the Graduating Cadet Captain and Brigade Commander to commemorate General Pershing's being First Captain of the Corps of Cadets in 1886.

ASSOCIATION OF GRADUATES AWARDS (1942). A $100 series E bond presented by the Association of Graduates to the cadet in the Second Class, and $75 and $50 series E bonds to the cadets in the Third and Fourth Classes outstanding in military efficiency and leadership.

THE GENERAL JOHN J. PERSHING AWARD (1948). A wrist watch given by the Army and Navy Union, USA, to the cadet with the highest rating in tactics.

THE EISENHOWER AWARD (1951). A silver tray presented in the name of Mr. Charles P. McCormick to the graduating cadet for excellence in military psychology and leadership.

THE GENERAL DOUGLAS MacARTHUR AWARD (1952). A pistol given by the Army and Navy Union (Department of New York) to the cadet officer commanding the First Regiment, USCC.

ARMY AND NAVY UNION LADIES AUXILIARY AWARD (1952). A pistol given by the Ladies Auxiliary of the Army and Navy

Union (Department of New York) to the cadet officer commanding the Second Regiment, USCC.

THE 306TH INFANTRY AWARD (1954). A wrist watch made available by the late Walter B. Tunick to the graduating cadet achieving excellence in physical education over the four year course.

CLASS OF 1927 AWARD (1957). A wrist watch given by the Class of 1927, USMA, to the cadet officer commanding the Third Regiment, USCC.

THE LEADERSHIP AWARD (1962). A silver tray given by the Leadership Foundation to the cadet officer commanding the Fourth Regiment, USCC.

THE GENERAL JOHN H. FORNEY HISTORICAL SOCIETY AWARD (1963). A set of luggage presented to a graduating cadet for Military Excellence in First Class Tactics.

OUTSTANDING COMPANY COMMANDER FIRST REGIMENT AWARD (1967). A silver tray donated by Maj. Gen. John M. Weikert, Class of 1923, to the outstanding company commander First Regiment, USCC.

Second, Third and Fourth are to be awarded but are not sponsored as of yet.

Individual General Awards

FRANCIS VINTON GREENE MEMORIAL AWARD (1920). A set of books given in memory of Maj. Gen. Francis Vinton Greene, USMA 1870, to the cadet standing number one in the general order of merit for four years.

MILITARY ORDER OF WORLD WARS AWARD (1942). A wrist watch presented to the graduating cadet who has made the greatest improvement since the completion of his fourth-class year.

THE CONSUL GENERAL OF SWITZERLAND AWARDS (1947). Two wrist watches given by the Consul General of Switzerland in the United States for excellence in intercollegiate debating.

THE HOWITZER MEMORIAL AWARD (1952). A set of books in memory of the late Lt. Arthur M. Apmann, Jr., USMA 1950, to the Editor of the "Howitzer."

ARMY TIMES AWARD (1956). A wrist watch presented in the name of the Army Times to the Editor of "The Pointer."

ASSOCIATION OF THE UNITED STATES ARMY AWARD (1961). A wrist watch presented in the name of the Association of the United States Army to the cadet who best exemplifies the traditions of the United States Military Academy and the United States Army.

THE PERUVIAN ARMY AWARD (1964). A plaque presented by the Peruvian Army to the graduating cadet ranking number one in General Order of Merit for four years.

ASSOCIATION OF GRADUATES AWARD (1965). A silver tray presented in behalf of the Association of Graduates for excellence in all fields of cadet endeavor.

THE COLONEL SAMUEL A. DANIEL MEMORIAL AWARD (1965). A silver tray presented in the name of Mrs Samuel A. Daniel to the Cadet-in-Charge of the Cadet Chapel Choir.

Individual Athletic Awards

1. THE PIERCE CURRIER FOSTER MEMORIAL TROPHY (1900). A silver tray presented in the name of the late Mrs. Anna A. Foster as a memorial to the late Lt. Foster to the best all round gymnast.

2. THE PIERCE CURRIER FOSTER MEMORIAL TROPHY (1900). A silver tray presented in the name of the late Mrs. Anna A. Foster as a memorial to the late Lt. Foster to the outstanding member of the 1967 wrestling team.

3. ARMY ATHLETIC ASSOCIATION TROPHY (1904). A silver tray is given by the Army Athletic Association to the cadet who has rendered the most valuable service to athletics during his career as a cadet.

4. THE EDGERTON AWARD (1908). A silver tray presented in the name of the late Colonel Wright P. Edgerton, USMA 1874, to the captain of the 1966 football team.

5. THE WILLIAM P. FICKES MEMORIAL TROPHY (1938). A silver tray presented in the names of the late Mr. and Mrs. Walter M. Fickes as a memorial to the late Lt. Fickes, USMA 1936, to the captain of the 1967 lacrosse team.

6. THE COLONEL THRUSTON HUGHES AWARD (1939). A silver tray presented in the name of Mrs. Thruston Hughes as a memorial to the late Colonel Hughes, USMA 1909, to the most valuable player on the football team.

7. THE EBER SIMPSON MEMORIAL TROPHY (1947). A silver tray presented as a memorial to the late CPT Simpson, USMA 1943, to the captain of the 1967 basketball team.

8. THE CLASS OF 1923 MEMORIAL AWARD (1949). A silver tray presented in the name of the Class of 1923 to the outstanding member of the swimming team in the graduating class.

9. THE COLONEL DAVID MARCUS MEMORIAL AWARD (1949). A silver tray presented as a memorial to the late Col Marcus, USMA 1924, to the outstanding boxer in the graduating class.

10. THE BRIG. GEN. JOHN W. COFFEY MEMORIAL TROPHY (1952). A silver tray presented as a memorial to the late Gen. Coffey, USMA August 1917, to the captain of the 1967 baseball team.

11. THE HAL BEUKEMA MEMORIAL AWARD (1955). A silver tray presented as a memorial to the late Major Henry Saw Beukema, USMA 1944, to the outstanding hockey player.

12. THE GENERAL GEORGE S. PATTON, JR., MEMORIAL TROPHY (1956). A pistol presented in memory of Gen. Patton, USMA 1909, to the captain of the 1967 pistol team.

13. THE MAJ. GEN. WILLIAM L. BELL, JR., MEMORIAL AWARD (1957). A silver tray presented as a memorial to the late Gen Bell, USMA 1929, to the captain of the 1967 gymnastics team.

14. THE THOMAS WEST HAMMOND MEMORIAL AWARD (1958). A silver tray, presented as a memorial to the late Col Hammond, USMA 1905, to the outstanding lineman on the army football team.

15. THE EASTERN COLLEGIATE ATHLETIC CONFERENCE AWARD (1959). A medal presented to the graduating cadet excelling in athletics and scholarship.

16. THE COLONEL JOHN A. ROBENSON MEMORIAL AWARD (1961). A silver tray presented as a memorial to the late

Col. Robenson, USMA 1910, to the outstanding player on the 150-pound football team.

17. THE FRED E. McANIFF MEMORIAL AWARD (1961). A silver tray presented in the name of the Society, Daughters, United States Army, West Point Chapter, as a memorial to the late Fred E. McAniff, USMA 1963, to the outstanding member of the 1967 varsity track team.

18. THE RINGSDORF AWARD (1961). A silver tray donated by Cols. Samuel D. Ringsdorf, USMA Aug 1917, and Paschal H. Ringsdorf, USMA 1923, to the outstanding army football player in the Army-Navy game.

19. THE FRANCIS HENRY SCHOEFFEL MEMORIAL AWARD (1963). A rifle presented as a memorial to the late LTC Schoeffel, USMA 1891, to the captain of the 1966 rifle team.

20. THE ATHLETIC BOARD AWARD (1964). A silver tray presented to the outstanding member of the cross country team.

21. THE ATHLETIC BOARD AWARD (1964). A silver tray presented to the outstanding player on the soccer team.

22. THE COLONEL RUSSELL P. "RED" REEDER, JR., AWARD (1965). A silver tray presented by friends to the outstanding player on the baseball team.

23. THE ATHLETIC BOARD AWARD (1965). A silver tray presented in the name of the Athletic Board to the outstanding member of the golf team.

24. THE ATHLETIC BOARD AWARD (1965). A silver tray presented in the name of the Athletic Board to the outstanding player on the 1967 tennis team.

25. THE ATHLETIC BOARD AWARD (1965). A silver tray presented in the name of the Athletic Board to the outstanding player on the 1967 squash team.

26. INTRAMURAL AWARDS (1966). Winners of brigade individual sports contests such as track and cross country are awarded silver medallions; runners-up receive bronze medallions.

27. THE LT. MICHAEL W. KILROY MEMORIAL AWARD (1967). A silver tray given by Mr. & Mrs. Harold F. Kilroy in memory of Lt. M. W. Kilroy, USMA 1963, to the captain of the swimming team.

Unit Achievement Awards

1. SUPERINTENDENT'S AWARD (1958). Four plaques awarded to the cadet company in each regiment which is judged to be the most outstanding in all areas of cadet endeavor.

2. ARMY ATHLETIC ASSOCIATION AWARD (1958). Four plaques awarded to the cadet company in each regiment which has made the greatest contribution to intercollegiate athletics.

3. BANKERS ASSOCIATION OF NEW YORK AWARD (1924). Awarded annually to the cadet company ranking first in intramural athletics during the year.

4. REGIMENTAL COMMANDER'S DRILL AWARD. Four plaques awarded three times each year to coincide with the three drill seasons to the cadet company in each regiment that is the most outstanding in drill and ceremonies.

5. PALMER E. PIERCE FOOTBALL TROPHY (1943). This silver cup, originally awarded to Gen. Palmer E. Pierce, USMA 1891, by the National Collegiate Athletic Association in recognition of his services to the Association, and bequeathed by him to the Army Athletic Association, is awarded to the company winning the brigade championship in intramural football.

6. GEORGE ALEXANDER CAMPBELL II MEMORIAL TROPHY (1949). Established by members of the Class of 1951 in memory of their classmate, Cadet Campbell, who died during yearling summer camp, this silver cup is awarded to the company winning the brigade championship in intramural basketball.

7. JARED WILLIAM MORROW MEMORIAL TROPHY (1951). Established by Cpt. Gerald D. Hall, USMA 1944, in memory of Lt. Jared William Morrow, USMA 1945, who died in battle in Korea in 1950, the silver cup is awarded to the company winning the brigade championship in intramural track.

8. ARTHUR H. TRUXES MEMORIAL TROPHY (1951). Established by Cpt. Gerald D. Hall, USMA 1944, in memory of Cpt. Arthur H. Truxes, Jr., USMA 1945, who died in battle in Korea in 1950, this silver cup is awarded to the company winning the brigade championship in intramural cross country.

9. INTRAMURAL ATHLETIC AWARDS. Plaques are awarded to the companies winning the brigade championships in each intramural sport; smaller plaques are awarded to brigade runners-up.

Cadet Activities

A West Point cadet is one of the busiest college students in the nation. Yet, despite a tight schedule including studies, classes, parades, and other military functions, he manages to take advantage of the numerous extracurricular activities offered at the United States Military Academy.

As a future officer, the USMA cadet must be a many-faceted individual. To cope with the complexity of modern warfare and the requirements inherent in leadership, cadets will need to acquire confidence and a working knowledge in a variety of fields. Extracurricular and recreational activities, in conjunction with the Military Academy's academic and military requirements, help give cadets the varied interests, knowledge, and experience in working with others needed for their future careers.

During the summer, facilities are provided for swimming and picnicking at Delafield Pond and Camp Buckner and picnicking at Constitution Island. Picturesque Flirtation Walk winds for three-quarters of a mile along the majestic Hudson, offering a peaceful and shady retreat from the walls of the barracks. Cadets of the Third Class stationed at Camp Buckner during the summer months enjoy swimming, canoeing, fishing, skeet, water skiing, and sailing. In the fall, the Corps takes one or more football trips to metropolitan areas where the bright lights are a welcome diversion. During the winter months, ice skating at Smith Rink and skiing at the Victor Constant Ski Slope are extremely popular. The ski tows, snow-making machine, and ski trails are probably among the finest ski facilities on any campus in America. Throughout the academic year, frequent hops are held in either the Gymnasium or Cullum Hall and movies are shown in the Army Theater. Prominent entertainers and programs are frequently brought to the Academy for performances.

In addition to general recreational activities, there are 62 organized extracurricular activities. Student government type activities include the Honor Committee, Class Committees, Ring and Crest Committees, and the Hop Committees in each Class.

Cadets also have available many sports, organized on a club level, which in conjunction with Varsity Sports, Intramural Athletics and Scheduled Physical Training develop the physical prowess and skills that will serve them well later. Handball, fencing, rugby, and triathlon sports provide vigorous recreation. Pistol, rifle, and skeet-shooting clubs develop cadet skill with firearms. Competitive sailing and water polo teach cadets to handle boats and take care of them-

selves in the water. The Cadet Sport Parachute Club provides parachute jumping experience, and the SCUBA Club, underwater training for interested cadets. Facilities for all of these activities are available to all cadets who choose to join the clubs.

Other clubs and organizations supplement academic study. One of the largest and most active of these is the West Point Debate Council and Forum. Through participation, the future officer gets practice in public speaking and in the art of persuasion. The Student Conference on United States Affairs held at West Point attracts participation by students and leaders from all over the country. To supplement cadet studies are the Mathematics Forum; five Foreign Language Clubs; and Astronomy, Audio, Radio, and Rocket Clubs. Cadets in the latter club have gained practical space-age experience in rocketry by launching their own homemade miniature rockets and by visiting Cape Kennedy and the George C. Marshall Space Centers.

Literary experience is another aspect of cadet extracurricular activity. Cadets put out their own yearbook, THE HOWITZER; their own monthly magazine, THE POINTER; a small handbook called BUGLE NOTES to acquaint new Fourth Classmen (Freshmen) with the customs, traditions, and history of West Point and SLUM AND GRAVY, a bimonthly sports bulletin.

KDET is the cadet AM radio station, fully equipped for voice broadcasting. Other hobbyists can find a place in the Academy's Chess and Outdoor Sportmen's Clubs.

For those who are musically inclined, the Cadet Dance Orchestra; the nationally-famed Cadet Glee Club; the Cadet Protestant, Catholic, and Jewish Chapel Choirs are also available to those cadets who desire to play a musical instrument or to sing. These groups often perform for national television or concert audiences.

Cadets also teach Sunday School for Post children. Another community service cadet group, The Scoutmaster Council, annually hosts a Camporee, which draws as many as 2,500 Scouts from all over the Eastern seaboard.

The Dialectic Society provides musical and acting outlets for cadets. Highlighting its annual activities is the time-honored "100th Night Show," presented, as the name implies, 100 nights before Graduation. The show is written and produced entirely by cadets, who also provide all the actors.

Organized extracurricular activities are directed and administered almost entirely by the cadets themselves, subject to the approval of the Commandant of Cadets. There is a volunteer Officer in Charge of each activity, who acts in an advisory capacity in addition to his

ARMY

other duties. Participation in these activities provides cadets an opportunity to acquire a wealth of knowledge and develop leadership and administrative talents which subsequently will serve them well in their careers as Army officers.

There are a number of large, well-equipped cadet reception rooms and lounges for cadets and their guests. Some have fully equipped snack bars, TV rooms, game rooms, and all are normally open on weekends and holidays throughout the year. The Cadet Activities Office, part of the staff for the Commandant of Cadets, helps plan the social and recreational programs for the Corps of Cadets. Three Cadet Hostesses provide assistance to the Commandant of Cadets in developing this program and also assist cadets in obtaining accommodations for their guests during the year.

INTERCOLLEGIATE ATHLETICS

Athletic Board: COL Elvin R. Heiberg (Chairman), BRIG GEN Richard P. Scott, BRIG GEN John R. Jannarone, COL Frank J. Kobes, Jr., COL Jerry G. Capka (Secretary).

Director of Athletics: COL Jerry G. Capka.

Executive Officer: LT COL William C. Bishop.

Assistant Director of Athletics: Mr. John P. Riley

Administrative officer: CPT James G. McKnight.

Coaches: **Baseball and 150-lb. Football,** Eric Tipton. **Basketball,** Robert Knight. **Asst.** Gale Daugherty. **Cross Country and Track,** Carleton Crowell. **Football,** Thomas B. Cahill. **Assistants,** Robert M. Mischak, William Meek, Tad Schroeder, Duane Parcells. **Golf,** Dennon West. **Gymnastics,** Frank A. Wells. **Hockey,** John P. Riley. **Lacrosse,** James F. Adams. **Pistol,** S/Maj. Herbert Roberts. **Rifle,** S/Maj. Alfred O'Neill. **Soccer,** Joseph Palone. **Squash and Tennis,** William C. B. Cullen. **Swimming,** John E. Ryan, Jr. **Wrestling,** Leroy Alitz.

The Director of Athletics is responsible to the Superintendent for the conduct of the intercollegiate athletic program and the operation of the Army Athletic Association. The Athletic Board is charged with advising the Superintendent on matters of athletic policy. The intercollegiate athletic program is financed by the Army Athletic Association, a self-supporting and nonprofit organization consisting of approximately 12,000 graduates of the Military Academy. No Government funds are appropriated for equipment, maintenance, and operation of the vast intercollegiate athletic plant.

A total of 18 sports are included in a complex schedule that keeps nearly half of the Corps of Cadets actively engaged in competitive sports throughout the academic year. These sports are football, 150-pound football, soccer, and cross country in the fall; basketball, indoor track, wrestling, swimming, gymnastics, hockey, rifle, pistol, and squash in the winter; and baseball, lacrosse, track, tennis, and golf in the spring.

Realizing the value of athletics to the Army, General Douglas MacArthur, who was Superintendent shortly after World War I, reorganized and strengthened the athletic system. "The training of the athletic field which," General MacArthur said, "produces in a superlative degree the attributes of fortitude, self-control, resolution, courage, mental agility and, of course, physical development, is one completely fundamental to an efficient soldiery."

Former President Dwight D. Eisenhower and Generals Omar N. Bradley and James A. Van Fleet are among the many distinguished wearers of the Army "A."

RELIGIOUS ACTIVITIES

All cadets are provided a sound basic religious atmosphere. Each cadet must attend one of the weekly chapel services—Protestant, Catholic, or Jewish.

Protestant

Protestant services are held in the Cadet Chapel every Sunday during the academic year and out-of-doors during the summer months. The Reverend James D. Ford, B.D., is the Chaplain, USMA. Mr. John A. Davis, Jr., is Organist and Choirmaster, USMA. Denominational Services of Holy Communion are conducted each Sunday in St. Martin's Chapel according to the rites of the Episcopal, Lutheran, Presbyterian, and Orthodox Churches. At the morning Worship Service the form of worship is interdenominational in character. Among the religious activities in which cadets take part are the Cadet Chapel Choir of 175 voices; the West Point Sunday School of 700 children of the Post taught entirely by 150 cadet teachers; the Cadet Chapel Acolytes; a program of Morning Devotions conducted every weekday at 6:30 a.m., evening discussion groups and annual religious retreats.

Catholic

Catholic cadets attend Holy Trinity Chapel, the Catholic Chapel on the Post. The Right Reverend Monsignor Joseph P. Moore is the Rector, and is assisted by Reverend Robert F. McCormick and Reverend Edwin F. O'Brien. Each Sunday Catholic members of the cadet regiments alternate in attending the early and late Masses to give opportunity for assisting at the late Mass which is a Missa Cantata. A cadet Catholic choir sings at the High Masses and other liturgical ceremonies. Cadet commentators and readers assist at all Cadet Masses. Daily Mass is celebrated at 6:20 and 7 a.m. throughout the academic year. Confessions are heard on Saturday, daily at Mass time, and as desired. A cadet Cardinal Newman Forum meets each week. By means of lectures, instructions and seminars, it treats of religion, morals and philosophy. Cadets teach Sunday School every week to pre-school and kindergarten children.

Jewish

Jewish worship services are held in the Old Cadet Chapel every Sunday at 8:30 a.m. during the academic year and at 10:30 a.m. during the summer season. Rabbi Avraham Soltes is the Jewish Chaplain. High Holy Day Services are held for the cadets at Temple Emanuel of Great Neck, L.I., N.Y. where the Jewish Chaplain serves as Spiritual Leader. Festival Services are conducted in the

Cadet Chapel

Catholic Holy Trinity Chapel

Old Cadet Chapel, and a special Passover service is held yearly at the U.S. Hotel Thayer. The Jewish Chapel Choir sings the Liturgical music at every service. The Jewish cadets also participate in the reading of the Liturgy and in the Torah service. Religious instruction for Post children of the Jewish faith is conducted by cadets on Sunday morning.

Admissions

General

In one major respect the requirements for admission to the Military Academy differ from those of a civilian college or university. A young man who desires to enter the Academy must first obtain from an authorized source permission to be examined for appointment to the Military Academy. Receipt of this permission is called a nomination. Having received a nomination, a candidate must undergo examinations to determine his academic, medical, and physical aptitude qualifications. If determined fully qualified in these three areas by the Military Academy Academic Board, the candidate is then authorized to receive a Cadetship. Selection (appointment) of those fully qualified candidates to fill cadetships for the class of 1972 is dependent on the type of nomination(s) the candidate holds and the number of vacancies to be filled.

It is important that prospective candidates make their interest in attending the Military Academy known to appropriate nominating sources as early as possible. The spring of the junior year in secondary school is ideal; however, most nominating sources will consider later requests.

Requirements

In order for a young man to be eligible for appointment to the Military Academy, he must meet the following requirements:

Age. On 1 July of the year he is to be admitted a candidate must have attained the age of 17 years and must not have reached the age of 22.

Citizenship. A candidate must be a citizen of the United States at the time of entry. (Foreign students nominated by mutual agreement between the United States and the countries concerned are exempt from this requirement.)

Marital Status. A candidate must never have been married. A cadet may not marry until he has graduated from the Academy.

Character. Each candidate's record must show positive evidence that he is responsible, trustworthy, emotionally stable, and of good moral character.

Motivation. A candidate must have a strong desire to become a cadet and pursue a military career. Experience has indicated that lack of motivation frequently results in failure to remain at the Academy.

Potential Leadership. Each candidate's record must include information concerning the effectiveness of his personality and the extent to which he has participated in school and community affairs.

Physical Condition. A candidate must be physically fit. He must successfully undergo qualifying medical and physical aptitude examination before he may be appointed.

Scholastic. A candidate's secondary school academic record, to include his performance on specified College Entrance Examining Board Tests, must show adequate preparation and indicate he has the potential to succeed in the academic curriculum at the Military Academy. Details are discussed in the following sections.

PREPARATION

ACADEMIC

General

The kind and amount of preparation a candidate brings to the Academy are of vital importance to his successful pursuit of the academic courses at West Point. Once the academic year begins, the pace is rapid and basic knowledge of fundamental secondary-school subjects is assumed. A well-prepared cadet, therefore, finds himself in an enviable position.

The large majority of candidates admitted to the Military Academy enter directly from secondary schools. Those who have graduated in the top portion of their high-school classes and have attained good grades in their mathematics and English courses should be able to qualify academically for admission. Experience has shown that in order to pursue successfully the academic courses at the Military Academy, it is essential that a candidate should have completed 4 years of English, at least 3 years of mathematics but preferably 4, 2 years of a foreign language, a year of laboratory science, and a year of United States History. The candidate's scholastic record must show adequate preparation in these respects in order for him to qualify for admission. Furthermore, his preparation should include additional courses in the mathematical sciences and the humanities. In addition, candidates are encouraged to submit for validation consideration College Entrance Examination Board Advanced Placement Test results.

Candidates unable to obtain appointments for admission to the Military Academy immediately following graduation from secondary school are encouraged to attend a civilian college or university pending receipt of an appointment to USMA. The undergraduate courses taken by the candidate should be substantial ones which will further prepare him for the rapid pace and high standards of academic accomplishment that are required at the Military Academy.

For the guidance of prospective candidates and their counselors the recommended preparation in English, mathematics, foreign languages, sciences, and United States History is shown in the following paragraphs.

English

Composition

Grammar, spelling, and punctuation.
Types of paragraphs and methods of developing paragraphs.
Organization of themes.

The techniques of summarizing.
Methods of research and use of the library.
Practice in speechmaking.

Literature

Ability to read with reasonable speed and good comprehension.
Familiarity with major patterns of writing, such as the essay, the drama, the short story, and the novel.
Some acquaintance with poetic forms, such as epic, narrative, dramatic monologue, ode, and sonnet.
Some familiarity with meter. stanza forms, and figures of speech.
Acquaintance with several plays of Shakespeare.
Some knowledge of representative English and American writers.

Mathematics

General

In order to succeed in mathematics at USMA, it is essential that the candidate have completed at least 3 years of college preparatory mathematics to include algebra, geometry, and trigonometry as outlined below. A candidate's scholastic record will not be considered qualifying for admission if it is deficient in any of the foregoing respects. It is especially important that the USMA applicant be studying mathematics in the year of school immediately preceding his intended enrollment at West Point, as this will facilitate his rapid adjustment to the demanding requirements at the Academy. A fourth year of college-preparatory mathematics is urged for all who have the opportunity for such instruction in their precollege academic training. Moreover a fourth year is *essential* for those who wish to study mathematics at West Point beyond the minimum required for graduation: see the section in the Academic course comments pertaining to the Advanced Study Programs.

The necessary scope of preparation in algebra, geometry, and trigonometry is given in the following sections:

Algebra

Emphasis in this area is placed on the following qualifications: (1) firm grounding in basic concepts and definitions; (2) a facility with basic techniques; and (3) the ability to apply logical analysis to the solution of problems. The candidate should be prepared in the following:

Applications of the fundamental operations.
Special products and factors.
Operations with fractions.
Radicals; fractional and negative exponents.

Systems of linear and quadratic equations.
Rectangular coordinates; the graphing of linear and quadratic equations in one and two variables.
Ratio, proportion, variation.
Common logarithms and applications.
Progressions, arithmetic and geometric.
The binomial theorem; the binomial formula with fractional and negative exponents.
Mathematical induction.
Elementary numerical trigonometry.

Geometry

As with algebra, careful preparation in the fundamentals of plane geometry and selected topics from solid geometry is necessary. The candidate should possess: (1) a knowledge of the basic concepts, definitions, and theorems of plane geometry; (2) an acceptable understanding of the nature of direct and indirect proof, and a facility with careful deductive reasoning as evidenced by his ability to prove standard theorems; (3) familiarity with the geometric properties of common plane figures; (4) a knowledge of spatial relationships, particularly those pertaining to lines and planes in space; and (5) familiarity with the definitions and geometrical properties of prisms, pyramids, cylinders, cones and spheres. The candidate should be prepared in the following:

Congruency theorems, and related theorems on triangles.
Inequalities of lines and angles.
Parallel and perpendicular lines.
Properties of quadrilaterals.
Circles: chords, central angles, arcs, tangents, secants.
Concurrent lines.
Similar triangles.
Areas of polygons.
Constructions.
The area of a circle as a limit.
Relations of lines and planes in space.
Definitions and properties of prisms, pyramids, cylinders, cones and spheres.

Trigonometry

In this subject the following qualifications are emphasized: (1) a knowledge of the concept of function and precise definitions of trigonometric functions of any angle; (2) thorough familiarity with the basic trigonometric identities; and (3) ability to apply

logical analysis to the solution of problems. The candidate should be prepared in the following:

Angles and their measure, standard position.
Trigonometric functions of angles and real numbers.
The Unit Circle.
Graphs of functions in rectangular and polar coordinates.
Applications of logarithms to trigonometry.
Fundamental identities, trigonometric equations.
Double and half-angle formulas.
Product, sum and difference formulas, and applications.
Solutions of oblique triangles, law of cosines and law of sines.
DeMoivere's Theorem, complex numbers.

Advanced Programs

The Military Academy offers advanced programs in mathematics during the first two years, including from 3.0 to 8.0 credit hours of mathematics in extra (advanced) courses beyond those required for graduation from USMA. These courses are offered initially to selected cadets whose pre-USMA academic record shows: (1) high quality of performance in the standard preparation outlined above in algebra, geometry and trigonometry; (2) not less than 4 years of college-preparatory mathematics including elementary plane analytic geometry; (3) active study of mathematics during the final year before entering the Military Academy. If a cadet meets these requirements and is assigned to an advanced program, he must also achieve high standing in mathematics during his early months at West Point in order to remain in the program. A candidate aspiring to such a program is urged to take the Level II rather than the Level I Mathematics achievement test of the College Board.

Foreign Languages

Preparation

Two or three years of high-school study of any foreign language will normally prove to be a helpful background for any of the languages taught at West Point. Those interested in taking one of the advanced language courses would do well to take 3 or 4 years of the same language (French, German, or Spanish) before entering the Academy. For those interested in studying Portuguese, previous courses in Latin and/or Spanish are advisable. For those desiring to study Russian, courses in either Latin or German, or preferably both, are recommended. (If previous Russian study is possible, it would, of course, provide the best preparation.) Regardless of the language studied, applicants should concentrate on the

basic organization of the language, including word forms and functions and sentence structure; on basic vocabulary, to include the common idiomatic expressions; and on accurate pronunciation and proper intonation in word groups and sentences. Courses offering extensive practice in speaking and aural comprehension, without ignoring the fundamentals of the language, should provide excellent preparation for the courses at the Military Academy.

Standard Program

Standard courses in five modern languages are offered at West Point: French, German, Portuguese, Russian, and Spanish. Each cadet studies one of these languages during his first 2 years at the Academy. Cadets are normally assigned to study the language of their choice; but it is sometimes necessary to assign a cadet to the language of second choice, in cases where quotas are oversubscribed.

Advanced Program

Accelerated and Advanced courses are conducted (during the same time and in lieu of the standard courses) in French, German, and Spanish, for those who qualify in a special placement examination consisting of several written parts, a dictation, an aural comprehension test, a passage to be read aloud, and oral replies to a number of simple questions in the language. Advanced courses may be conducted in Portuguese and Russian provided a sufficient number of cadets qualify therefor. A minimum of 2 years of high-school study of the language or 1 year of college study is the prerequisite for consideration for the advanced course. Cadets who have completed 2 years of high-school study but who fail to qualify for the advanced course may normally take the accelerated (intermediate) course in the same language.

Science

Preparation should include, as a minimum, a standard secondary-school course (including laboratory) in general science, physics, or chemistry. Experience has indicated the desirability of including all three courses in secondary-school preparation.

United States History

The candidate should know the facts and understand the chronological and other relationships concerning the major developments in American History, to include:

Settlement and growth of the English Colonies.

The American Revolution.

Growth of American democratic institutions.

Expansion of the United States.
The Civil War.
Economic development of the United States.
Growth of American social and cultural patterns.
International Relations.

Physical Conditioning

Because of the nature of the new cadets' training during their first 2 months at West Point, physical demands upon them are necessarily great. Experience indicates that those cadets who, prior to admission, have conditioned themselves physically are best able to meet the training requirements. The candidate should strive for the degree of conditioning required for vigorous team sports. He is advised to practice heavy physical conditioning exercises (such as pull-ups, sit-ups, and push-ups) until many repetitions of the exercises can be performed without severe physical strain. In addition, he should strengthen his legs and wind by regular cross country running and by fast climbing on steep slopes. A program of vigorous competitive sports should be followed, with emphasis on variety of sports rather than on one favorite activity. Any candidate in doubt about his physical-conditioning methods would be well-advised to consult a high school or college physical education department.

NOMINATION

General

Each cadetship at the Military Academy is allocated by law to a specified Member of Congress, to the Governor (or Commissioner) of a U.S. Territory, or to the Secretary of the Army. When a cadetship becomes vacant, due to graduation or other causes, the nominating authority nominates individuals to fill the vacancy. The congressional authority to whom a vacancy is allocated transmits to the Department of the Army the names of up to six young men to fill the vacancy and indicates the method to be used in selecting the candidate to be appointed to the cadetship.

Congressional Nominations

Cadetships allocated to Members of Congress and Commissioners or Governors are termed CONGRESSIONAL and are listed below:

Vice President	5
100 Senators (5 each)	500
435 Representatives (5 each)	2175
District of Columbia Commissioners	5
Canal Zone Governor	1
Puerto Rico Resident Commissioner/Governor	6
Guam, Virgin Islands, American Samoa Governors	1
Total	2693

The Vice President nominates from the United States at large. United States Senators and Representatives-at-Large nominate from their respective states at large. U.S. Representatives, other than those elected at large, nominate from their districts. The Commissioners of the District of Columbia nominate from among the residents of the District. The Governor of the Canal Zone nominates from among the sons of civilians residing in the Canal Zone, and from among sons of civilian personnel of the U.S. Government and the Panama Canal Company residing in the Republic of Panama. The Governor of Puerto Rico must nominate a native of Puerto Rico to fill his single cadetship. The Resident Commissioner nominates from among residents domiciled in Puerto Rico to fill the five cadetships allocated to him. The Governors of Guam, of the Virgin Islands and of American Samoa nominate from among the sons of U.S. citizens or nationals residing on their respective Islands.

As most Congressional Authorities conduct interviews and tests before selecting their nominees, it is important that each young man interested in entering the Military Academy apply for consideration to his authorized nominating sources at least one year prior to the time he expects to enter the Academy (July).

Congressional nominating authorities specify to the Department of the Army, the method to be used in making the final selection of the candidate to fill the vacant cadetship. The most common methods are described below:

Principal-Alternate Method. Members of Congress using this method may nominate six candidates, one being named as principal, one as first alternate, one as second alternate, one as third alternate, one as fourth alternate, and one as fifth alternate. The first alternate, if qualified, will be admitted if the principal fails; the second alternate, if qualified, will be admitted if the principal and first alternate fail; and so on for succeeding alternates.

Competitive Method. Members of Congress, when making their nominations for each vacancy, authorize the Academic Board, USMA, to select the best qualified of their nominees, Such nominees are termed "Congressional Competitors."

Army Nominations

The Secretary of the Army's annual allocation of cadetships, termed ARMY, is distributed to specific categories below for the class entering in July 1968.

Presidential	100
Members of the Regular Army (Enlistments)	75
Members of the Army Reserve Components (Enlisted)	75
Sons of Veterans	20
Honor Military and Honor Naval Schools	13
Sons of Persons Awarded the Medal of Honor	Unlimited

Appointments to vacancies within each of the Army categories are awarded to best qualified candidates within each category on a competitive basis. Each Army candidate, with the exception of those from the Regular Army category, must complete all required College Board examinations on or before the December 2, 1967, test administration. Failure to do so will cancel his nomination. Results of later College Board administrations (January or March 1968) will not be considered except in cases where the candidate holds one or more Congressional Nomination(s) in addition to an Army nomination, and then only for those Congressional nominations. Regular Army nominees are authorized to submit with their records the results of January 1968 College Board tests. A detailed discussion of the competitive nomination categories follows below.

Presidential:

The Presidential category is reserved by law for the sons of career military personnel—enlisted, warrant and commissioned—of the Army, Navy, Air Force, Marine Corps and Coast Guard, whether active, retired, or deceased. The term career includes members of

the Reserve Components currently serving eight years or more of continuous active duty (other than active duty for training) and retirees receiving either retired or retainer pay. Note: Sons of Reservists retired while *not* on active duty are ineligible. These nominations are administered in Headquarters, Department of the Army. Interested young men should make application by letter to The Adjutant General, ATTN: AGPB–M, Department of the Army, Washington, D.C., 20315, no later than 1 November 1967. An adopted son is eligible if he was adopted prior to his 15th birthday: a copy of the order of court decreeing adoption, duly certified by the clerk of the court, must accompany the application. Letters requesting nomination should include the following:

Name, address, and date of birth of applicant.

Name, Grade, Service Number, Component and Branch of Service of the parent.

Retired or Deceased (furnish date and copy of retirement orders or casualty report).

Enlisted Men—Attach statement prepared by personnel officer listing date of enlistment, date of expiration of enlistment, component and branch of service.

Regular Army:

Nomination of candidates to fill the annual vacancies held for members of the Regular Army is outlined in detail in AR 350–55. This publication may be obtained from the nearest Army installation; by writing to Headquarters, Department of the Army, ATTN: AGPB—M, Washington, D.C., 20315; or by writing to The Director of Admissions and Registrar, West Point, N.Y., 10996. All Regular Army nominees are required to attend the USMA Preparatory School at Fort Belvoir, Virginia, during the year prior to entering the Military Academy.

The United States Military Academy Preparatory School is an Army training facility where servicemen on active duty are assigned for intense academic, physical and military training in anticipation of entering the United States Military Academy. All applicants must satisfy minimum academic and medical standards before transfer to the Preparatory School is authorized, and all must either be nominated, or eligible to compete, for admission to the Military Academy.

The training course runs from mid-August through May and enrollment at the start of the course is a primary requirement.

Inquiries may be addressed to The Adjutant General, ATTN: AGPB–M, Department of the Army, Washington, D.C. 20315.

Army Reserve:

Nominations to fill the annual vacancies held for members of the Reserve Components are outlined in detail in AR 350–55. This publication may be obtained from the nearest Army installation; by writing to Headquarters, Department of the Army, ATTN: AGPB–M, Washington, D.C. 20315; or by writing to the Director of Admissions and Registrar, West Point, N. Y. 10996.

Sons of Veterans Quota:

Cadetships are provided for the sons of deceased Armed Forces Personnel who were either killed in action or died of wounds or injuries received or disease aggravated by active service, or have a service-connected disability rated at not less than 100 percent resulting from wounds or injuries received or diseases contracted in active service or pre-existing injury or disease aggravated by active service. The Veterans Administration determines eligibility and its decisions are final and binding on the Department of the Army. Application should be made by letter addressed to The Adjutant General, ATTN: AGPB–M, Headquarters, Department of the Army, Washington, D.C. 20315. Application must be made prior to 1 November 1967. The letter of application should state the full name, date of birth, and address of the applicant (complete

service address should be given if the applicant is in the Armed Forces); and the name, grade, service number, and last organization of the veteran parent, together with a brief statement concerning the time, place, and cause of death or details of disability as appropriate. The claim number assigned to the veteran parent's case by the Veterans Administration should also be furnished.

Honor Military and Honor Naval Schools:

Cadetships are provided annually for graduates of Honor Military and Honor Naval schools. Each such school, designated as an honor school by annual Department of the Army or Department of the Navy inspections, is invited to nominate three candidates annually from among its honor graduates. The cadetships will be filled by selecting the best qualified candidates regardless of the school from which nominated. The candidates need not be members of the graduating class of the current year, but in each instance the head of the school must certify that the candidate (1) has been a member of the ROTC unit at least two years; (2) has been, or is to be graduated within the upper third of his class; (3) has demonstrated in his academic, extracurricular, and ROTC activities that he possesses outstanding qualities of leadership, character and aptitude for the Military Service; (4) has shown proficiency in not less than 15 units in subjects prescribed for admission to the Military Academy; and (5) has met all other requirements of law and regulations prescribed for admission to the Military Academy. Honor School nominations must be received by The Adjutant General, ATTN: AGPB-M, Headquarters, Department of the Army, Washington, D.C. 20315, before 1 November 1967.

Sons of Persons Awarded the Medal of Honor:

Sons of recipients of the Medal of Honor may be nominated and appointed to the Military Academy. The administration of these nominations is in the Department of the Army. Application by those eligible should be made by letter to The Adjutant General, ATTN: AGPB–M, Headquarters, Department of the Army, Washington, D.C. 20315. The letter should contain the applicant's full name, address, and date of birth (complete service address should be given if the applicant is in the Armed Forces); the name, grade, and branch of service of the parent; and a brief statement of the date and circumstances of the award. There is no limitation upon this category and all candidates who are found fully qualified will be admitted as cadets.

Allied Cadets

Young men from the allied countries listed below may be designated by their governments to take the entrance examinations and, if qualified, be authorized to receive instruction at the Military Academy. Requirements for the admission, advancement from class to class, and graduation of allied cadets are the same as those for cadets of the United States. While a cadet, they receive the same pay and allowances as cadets appointed from the United States. They are not entitled, however, by reason of their graduation, to appointment in the Armed Forces of the United States.

Republic of the Philippines. One Philippine National, from among those designated by the President of the Republic of the Philippines, selected on the basis of his academic record and College Board test scores, is authorized to enter with the new class each July.

American Republics. A total of not more than 20 citizens of the American Republics may receive instruction at the Military Academy at any one time. Selection will be determined in the same manner as for nominees from the Republic of the Philippines. Not more than three persons from any one country may be cadets at the same time.

Other Allied Countries. From time to time, citizens of other allied countries have been permitted to attend the Military Academy upon specific authorization of the United States Congress. Selection will be determined in the same manner as for nominees from the Republic of the Philippines.

Progress Reports on Qualifications

In order to keep candidates informed concerning their qualification for admission, The Adjutant General, Department of the Army, will issue progress reports on academic, medical, and physical aptitude qualifications, when such information is complete.

Early Notification of Admission

Candidates who hold principal nominations to the Military Academy will be notified of acceptance as soon as they meet all entrance requirements. Additionally, the most outstanding among other qualified candidates may be notified early after completed evaluation and approval by the Academic Board.

WHEN TO TAKE QUALIFYING EXAMINATIONS (Class of 1972)

CATEGORY	NOMINATION	COLLEGE BOARD EXAMINATIONS [1]			PHYSICAL APTITUDE EXAMINATION		MEDICAL EXAMINATIONS [3]	
		Not Later Than			Not Later Than		Not Later Than	
		Dec. 1967	Jan. 1968	Mar. 1968	Jan.[2] 1968	Mar. 1968	Jan. 1968	Mar.[4] 1968
Congressional	Competitor or competing alternate			X		X		X
	Principal-Alternate			X		X		X
Army	Presidential	X			X		X	
	Regular Army		X		X		X	
	Army Reserve	X			X		X	
	Sons of Veterans	X			X		X	
	Honor Military Schools	X			X		X	
Special	Sons of Persons Awarded Medal of Honor			X	X		X	
	Allied			X	Not Required			

[1] College Board Tests required of all nominees: Scholastic Aptitude Test, English Composition, Math Level I or II.

[2] Candidates tested in January will have PAE results used for all nominations held at that time.

[3] All candidates must take a qualifying medical examination within the year prior to admission at any authorized Army, Navy or Air Force Medical Facility listed in this catalogue by individual arrangement or at the designated test site at the time indicated.

[4] The March examinations are for the Congressional candidates nominated after the January test date, and for Presidential candidates residing outside the continental United States.

QUALIFICATION

General

The Adjutant General, Department of the Army will send to each candidate his official letter of nomination. This letter will authorize the candidate to take the academic, medical, and physical aptitude examinations required to establish qualification for appointment to the Military Academy to fill the vacancy for which nominated. The Adjutant General will include with his letter, detailed instructions as to tests required, examination dates, and the personal and scholastic data he must send, or cause to be sent, to the Military Academy.

January and March Examining Centers

A candidate's letter of nomination from The Adjutant General, Department of the Army, will instruct him to report to a military installation near his home for testing on Wednesday, either 10 January 1968 or 28 February 1968. There he will be given the opportunity to take the qualifying examinations required for admission to the Military Academy. Presidential, Reserves, Honor School, and Sons of Veterans must, however, take the required College Board tests no later than the December test administration. The Medical and Physical Aptitude Examinations will be administered first and normally should be completed by Friday. No pre-registration for the College Board tests is necessary for candidates eligible to take the College Board tests at military installations in January or March.

During the examination period living accommodations and meals will be provided to candidates at a minimal cost. Except for active duty servicemen, travel and personal expenses will be met by the candidate.

The authority to report for testing in January or February should not deter a candidate from arranging to take his qualifying medical examination at some earlier time. It is to the candidate's advantage to do so in order that he may determine his chances for qualification as early as possible. The same consideration applies for his taking the required College Board tests. A candidate who has previously completed his medical examination and has taken, or is registered to take, the required College Board tests in his local area, should be able to return home on Thursday following the administration of the Physical Aptitude Examination.

The following military installations will conduct March 1968 USMA Candidate testing commencing 28 February 1968. Those installations marked by an asterisk (*) will also conduct testing beginning 10 January 1968. The test site for each candidate will be designated by The Adjutant General in the letter of nomination. Under emergency conditions only request for changes in test site should be directed to The Adjutant General, ATTN: AGPB–M, Headquarters, Department of the Army, Washington, D. C., 20315.

ALASKA
*Anchorage—Fort Richardson
ARIZONA
*Cochise County—Fort Huachuca
CALIFORNIA
*San Francisco—Presidio of San Francisco
COLORADO
*Denver—Fitzsimons GH
GEORGIA
*Atlanta—Fort McPherson
*Columbus—Fort Benning
HAWAII
*Tripler Army Hospital
ILLINOIS
*Highland Park—Fort Sheridan
INDIANA
*Indianapolis—Fort Benjamin Harrison
KANSAS
*Leavenworth—Fort Leavenworth
KENTUCKY
*Hardin County—Fort Knox
*Hopkinsville—Fort Campbell
MARYLAND
*Laurel—Fort George G. Meade
MASSACHUSETTS
*Ayer—Fort Devens
MISSISSIPPI
*Biloxi—Keesler AFB
MISSOURI
*Waynesville—Fort Leonard Wood
NEW JERSEY
*Wrightstown—Fort Dix
NORTH CAROLINA
*Fayetteville—Fort Bragg
OKLAHOMA
*Lawton—Fort Sill
PENNSYLVANIA
*Carlisle—Carlisle Barracks
*Phoenixville—Valley Forge GH
PUERTO RICO
San Juan—Fort Brooke
SOUTH CAROLINA
*Columbia—Fort Jackson
TEXAS
*El Paso—William Beaumont GH
*San Antonio—Fort Sam Houston
UTAH .
*Ogden—Hill AFB
VIRGINIA
*Fairfax County—Fort Belvoir
WASHINGTON
*Tacoma—Fort Lewis
CANAL ZONE
Fort Clayton
GERMANY
Heidelberg, USAH
JAPAN
Camp Zama
GH—General Hospital
AH—Army Hospital
AFB—Air Force Base
NAS—Naval Air Station

Failure of any candidate to complete the required examinations according to the prescribed schedule will cause his nomination to be nullified. Similarly, the nomination of a Congressional principal or an alternate will be nullified unless he can establish that the reason for his failure to take the examination by 2 March 1968 was due to sickness or other unavoidable circumstance. In each such case of unavoidable absence, the principal or alternate may request of The Adjutant General permission to take the tests in June 1968, at West Point. Conflicts with academic schedules and

athletic contests are not considered unavoidable and do not constitute justification for postponement of the examinations.

Candidates holding competitive nominations may not have the testing postponed. Failure of a competitor to complete his testing on the date scheduled for any reason, including sickness or injury, will nullify the nomination.

June Examination at West Point

A special administration of all required examinations will be conducted at West Point in June 1968. This administration is limited to candidates nominated after the March examination period, and to principal or alternate candidates who for unavoidable causes were unable to take the March tests. During the June examination period, meals and living accommodations will be furnished at a nominal cost; however, travel costs to and from West Point will be borne by the candidate.

Academic Qualification

General: A candidate's academic qualification is determined by the military Academy's Academic Board based on the following:

1. A review of his entire scholastic record in secondary school (and college, if appropriate) to determine that he has the aptitude and demonstrated capability to succeed in the demanding curriculum required of all cadets.

2. Acceptable performance on the following College Entrance Examination Board tests:

Scholastic Aptitude Test

English Composition Achievement Test

Level I or Level II Mathematics Achievement Test*

3. Recommendations from the Principal, counselors, teachers, and other school officials in position to judge accurately the academic performance and potential of the candidate.

Scholastic Record

The candidate must complete the enclosed School and Personal History forms *promptly* and transmit them to the Military Academy. A secondary-school transcript, including grades for the latest completed term, should also be forwarded by the school. If a candidate is in college, a transcript covering his college work must also be forwarded to the Military Academy.

---

*Scores on either the Level I or Level II Mathematics achievement test will be accepted by the Military Academy. No adjustment is made on the scores because of any possible difference in the degree of difficulty of the two tests; however, an individual who has done well in three years of college-preparatory mathematics and is enrolled in a fourth year should be adequately prepared for the Level II test and should not hesitate to take it.

College Board Examinations

Each candidate must submit to the Military Academy results of the College Entrance Examining Board tests for Scholastic Aptitude, English Composition, and Level I or Level II Mathematics. (See summary—131 "When To Take Qualifying Examinations".)

A candidate who desires to take the tests in December 1967, or in January or March 1968 is encouraged to do so in his local area.

At the time he registers for the tests, he must designate the Military Academy as an institution to receive the results.

If a candidate desires that results from tests previously taken be considered, he must contact the College Entrance Examining Board, Princeton, N.J., or Berkeley, California (as appropriate), and request that such results be sent to the Military Academy. He must enclose one dollar ($1) with his request to cover handling and mailing costs.

The *best* results received will be given primary consideration, consistent with the candidate's category of nomination. A candidate will be notified of success or failure as soon as the test results, plus other required academic data, are received and evaluated at the Military Academy.

In addition to the local College Board examining sites, the College Board tests will be conducted at the designated military testing station indicated on the candidate's letter of nomination on 13 January and 2 March 1968.

Expenses incident to taking the College Board tests, whether in a local area or at a military test site, will be borne by the candidate.

Physical Aptitude Examination

General: Each candidate is required to establish his qualification in Physical Aptitude. Qualification is determined by an examination designed by the Military Academy to measure strength, coordination, muscular power, endurance, speed, and agility. It is given at the military test sites in January and February 1968. For candidates nominated after March, the test will be given at West Point in June 1968.

Qualification is determined on the basis of total performance in five or six physical performance tests (see examples Appendix B). A poor performance on a single test will not necessarily result in disqualification.

A candidate who has qualified in Physical Aptitude in previous years is not required to reestablish his qualification during the current year unless, as a competitive candidate, he desires to take the test again in order to establish a higher test qualification score. Decision

in this regard rests with the candidate and no recommendation will be offered by the Military Academy. Primary consideration will be given to the latest test results.

A candidate who is found disqualified on the January 1968 tests will be authorized no further testing for nominations he holds at that time. Should he receive an additional nomination prior to the February test, he will be authorized to retake the examination at the time of the regularly scheduled February 1968 examination. A candidate nominated after February 1968 will be authorized to take the examination in June at West Point.

Preparation for Examination: Candidates are advised to prepare for this examination by engaging in vigorous activities such as running, general conditioning exercises, and competitive games rather than in practicing on specific test items.

Medical Examination

General: Every candidate, regardless of the type or source of his nomination, must undergo a qualifying medical examination during the twelve months preceding 1 July 1968. This examination may be scheduled by the candidate at one of the authorized medical facilities listed in Appendix C at any time following receipt of his nomination; or he may take the examination at the test site designated in his letter of nomination at the same time he reports for the Physical Aptitude Examination. Regardless of the number of nominations a candidate receives, he need take the medical examination only once. Qualification, or unacceptability, determined by that examination will stand for all nominations held. A General Outline of Medical Considerations is also found in Appendix C.

Procedures: As soon as possible after receipt of his letter of nomination, the candidate is encouraged to make arrangements with the nearest Authorized Medical Testing Facility (Army hospital preferred) to take the medical examination. To do this, he should contact the Physical Examining Section of the Facility, preferably in writing, requesting an appointment to take the *QUALIFYING MEDICAL EXAMINATION* for candidates to the Military Academy. Travel and personal expenses incurred in taking the examination are the responsibility of the candidate. When the examination is completed, all forms and records will be sent by the Examining Facility to The Surgeon General, Department of the Army, for evaluation. NOTE: (The examining facility does not have the authority to make a qualification determination on any candidate for the Military Academy.) Within eight weeks following

the date of examination, the candidate should receive notification of the results from The Adjutant General, Department of the Army.

A candidate wearing contact lenses must remove them at least 72 hours prior to reporting for the medical examination. At the time of the examination, it is important that he report all previous injuries and operations in order to assist the examining officer and to obviate possible uncertainty in the findings reported.

Should a candidate be unable to make satisfactory arrangements before his designated test period in January or February 1968, he will be afforded the opportunity to take the medical examination at that latter time. Similarly, a candidate who is required to report to West Point for the June 1968 qualification examinations will also be authorized to receive the medical examination during the same period.

Qualification: Final qualification is determined by The Surgeon General, as announced by The Adjutant General. A candidate who is qualified will not be required to take another medical examination for subsequent nominations. If he is found disqualified due to a non-remediable condition, no further testing as a candidate for the Military Academy will be authorized. If the disqualification is determined remediable, he will be notified by The Adjutant General, Department of the Army, of the corrective measures he must take in order to be reexamined. All inquiries pertaining to final medical qualification should be directed to The Adjutant General, Department of the Army, ATTN: AGPB–M, Washington, D.C., 20315.

Medical Examinations Taken for Other Service Academies

The Medical Qualifying examination for the Military, Naval, and Air Force Academies is the same although the standards differ somewhat due to the commissioning requirements of various services. If a candidate for the Military Academy desires to have copies of his examination forwarded for consideration by the Navy or the Air Force, *he must request the Chief of the Examining Facility to do so at the time he is examined.* For the Naval Academy a candidate should request copies be sent to: The Board of Medical Examiners, United States Naval Academy, Annapolis, Maryland. In the case of the Air Force Academy a candidate should request copies be sent to: The Director of Admissions, United States Air Force Academy, Colorado Springs, Colorado. A candidate who takes a qualifying medical examination for another Service Academy and desires that it be used in support of his Military Academy nomination, must take steps analogous to those indicated above. The copies

should be sent to: The Surgeon General, Department of the Army, ATTN: Physical Standards Branch, Washington, D.C., 20315. It is the candidate's responsibility to insure that the examination results are so forwarded.

Determination of Qualification

All candidates have their academic, physical aptitude, and medical qualifications determined in the same way. For Principal-Alternate candidates, simple qualification is all that is necessary because their order of consideration has already been designated by the nominating authority. For CONGRESSIONAL and ARMY competitors, their Academic and Physical Aptitude records are evaluated and weighted in order to develop an order of merit within each nominating group. This weighting is made by giving 60% to scholastic factors, 30% to leadership potential and 10% to the results of the Physical Aptitude Examination.

As soon as a qualification in any of the three test areas—Academic, Physical Aptitude, Medical—is determined the candidate is notified by The Adjutant General, Department of the Army.

For ARMY competitive candidates, academic qualification will be determined upon receipt of the required scholastic background data, plus the results of the College Board tests taken not later than the December 1967 Test Administration. (Not later than January 1968 for Regular Army Candidates.)

A candidate who takes the Physical Aptitude Examination in January 1968 will have that score applied to all nominations held at that time. Should he subsequently receive a new nomination and desire to retake the test in March, he will be authorized to do so; however, the results of this retake will apply to the new nomination only. A candidate may elect to have the January results apply to the new nomination.

A candidate who has been notified of his qualifications in the three test areas, need not retake any examinations for an additional nomination received before July 1968. Nevertheless, as a CONGRESSIONAL candidate, he is authorized to do so as outlined in the paragraphs above. In all cases, the latest information concerning test results and related qualification data, available at the Military Academy, consistent with cutoff dates, are given primary consideration in the final determination of qualification.

Disqualification

A candidate who fails to submit the required College Board results, taken on or before the time specified for his category of nomination, automatically nullifies nomination. His candidacy will no longer

be considered. Similarly, a candidate who fails to take the Medical and Physical Aptitude Examinations on or before the March 1968 Test Period will cause his nomination to be nullified unless he is authorized to be tested, at West Point, in June 1968.

When, in the processing of a candidate's record, it is determined that he is unacceptable academically or in physical aptitude, he will be so notified. No further processing of his records will be conducted and no further testing will be authorized for those nominations held at that time. Should he subsequently secure an additional nomination, then his file will be reopened and he will be authorized to submit additional test data in support of this new nomination only.

A candidate who is found to be medically unacceptable will not be authorized further testing as a candidate to the class entering in July 1968.

Nominees Who Were Candidates in a Prior Year

A nominee who was a candidate in a prior year and found to be fully qualified but not selected as an appointee, may have the prior academic and physical aptitude examination results used in determining his current qualification. He *MUST* retake the medical examination. In addition, he must submit to the Military Academy transcripts of his academic work through his latest completed term in college. If he holds a competitive nomination, he may retake any or all of the required College Board and the Physical Aptitude Examinations.

A candidate (except an ex-cadet) once found academically qualified for admission will *normally* be considered academically qualified under any subsequent nomination. Exception to this policy will be made by the Academic Board on an individual case basis.

A nominee who was a candidate in a prior year and found to be unacceptable academically and/or in physical aptitude must retake the required College Board tests and/or Physical Aptitude Examination before his qualification can be determined. If previously qualified in either of these two areas, he is not required to retake the test for that area.

Appointment

Each fully qualified candidate nominated before March 1968, and selected for admission with the Class of 1972, will be notified of his appointment status by The Adjutant General, Department of the Army. Such appointees will be directed to report to West Point on 1 July 1968.

Those post-March candidates who are tested at West Point in June will receive notification approximately 24 June 1968.

Qualified Alternates and Qualified Competitors

If it is determined that the number of appointed candidates to the Class of 1972 will not fill the available vacancies allocated for the class, the Academic Board will recommend for appointment candidates who have been found fully qualified but who failed to receive the appointment to the particular vacancy for which they were nominated. In making its selection, the Board will consider the following factors: academic ability based upon the candidate's entire scholastic record; character and other personal attributes, as shown by statements furnished by principals, teachers, and other school officials; evidence of exceptional capabilities; and leadership potential. *No application by a candidate is necessary. All fully qualified* candidates without appointments will be considered. Candidates appointed under this procedure are not charged to the CONGRESSIONAL or ARMY quotas under which they were originally nominated.

Reapplication

A candidate who qualified for appointment, but is not selected for a class entering the Academy, is encouraged to reapply for a nomination in a subsequent year. Policies as to whether or not the results of previously taken examinations will be considered in such cases are set forth in the section on Examinations.

Guidance for Appointees—Class of 1972

Preparatory Physical Conditioning: Because of the nature of new cadets' training during their first two months at West Point, physical demands are necessarily great. Experience indicates that those cadets who, prior to admission, have conditioned themselves physically are best able to meet the training requirements. The candidate should strive for the degree of conditioning required for vigorous team sports. He is advised to practice heavy physical conditioning exercises (such as pull-ups, sit-ups, and push-ups) until many repetitions of the exercises can be performed without severe physical strain. In addition, he should strengthen his legs and wind by regular cross-country running and by fast climbing on steep slopes. A program of vigorous competitive sports should be followed, with emphasis on variety of sports rather than on one favorite activity. Any candidate in doubt about his physical-conditioning methods would be well-advised to consult a high school or college physical education department.

Deposit Upon Entrance: Because the initial wardrobe of uniforms and equipment requires a heavy expenditure of fund during this first year, the appointee should make a deposit of $300.00 prior to his entrance to the Military Academy. Deposits should be made by 1 June except for those candidates selected after 30 May. When such deposit is in the form of a check, it should be made payable to the Treasurer, USMA, and mailed to the Treasurer, USMA, West Point, New York 10996. The cancelled check will serve as a receipt.

Immunizations: The appointee is required to furnish the Surgeon, USMA, by mail, evidence from a physician of successful smallpox vaccination, including type of reaction, given within six months prior to entry to the Military Academy. Candidates examined at West Point in June will be required to submit such documentary evidence, by mail, as soon as possible thereafter. A list of other vaccinations or inoculations received by the appointee should be included.

Travel Expenses: New cadets who were members of the Armed Services on active duty are entitled to permanent change of station allowances as provided under the Joint Travel Regulations. New cadets who were not previously members of the Armed Services on active duty are entitled to the permanent change of station allowances for travel actually performed, not to exceed the official distance from the place which the cadet certifies was his actual permanent place of abode, home or school, at the time such travel to the Academy commenced. The allowance for travel at personal expense is 6 cents per mile. Payment of the travel allowance is usually made in the month of September and is credited to the cadet's account. Should the deposit upon entrance plus the travel allowance exceed $300, the cadet may submit a request to have the excess over $300 returned to his parents. No action is taken on any request for the return of excess deposit until the travel allowance has been paid. The request for return of excess allowance to parents must be initiated by the cadet.

Policy Requiring Active Army Service: Any Cadet who is separated from the Military Academy after beginning the first semester of his junior (Second Class) year because of deliberate acts or omissions which are considered contrary to the obligation assumed by him upon entry to the Military Academy, is subject to being ordered to active duty as an enlisted man for two or more years as directed by the Secretary of the Army.

Oath of Allegiance: Each appointee (except an allied cadet) takes the following oath of allegiance to the United States in a formal ceremony on the day of admission:

I. Oath of Allegiance

I, _____,
do solemnly swear that I will support the Constitution of the United States, and bear true allegiance to the National Government; that I will maintain and defend the sovereignty of the United States, paramount to any and all allegiance, sovereignty, or fealty I may owe to any State or country whatsoever; and that I will at all times obey the legal orders of my superior officers, and the Uniform Code of Military Justice.

II. Engagement for Service

I, having been appointed a cadet of the United States Military Academy, do hereby engage, with the consent of my parents or guardian if I am a minor, unless sooner separated from the Academy:

a. To complete the course of instruction at the United States Military Academy:

b. If tendered an appointment as a commissioned officer in a Regular component of one of the armed services upon graduation from the United States Military Academy, to accept such appointment and to serve under such appointment for not less than five consecutive years immediately following the date of graduation.

c. If an appointment as provided in II b above, is not tendered or if permitted to resign prior to the sixth anniversary of my graduation, to accept an appointment as a commissioned officer in the Army Reserve, Navy Reserve, or the Air Force Reserve and remain therein until such sixth anniversary.

d. In the event of my separation or the acceptance of my resignation from the Corps of Cadets, to complete my active duty obligation or, to accept, if qualified, transfer to the Army Reserve in an appropriate enlisted grade and complete the six-year service obligation, including active duty training if required. Further, notwithstanding any of the aforegoing, in the event of my separation or the acceptance of my resignation from the Corps of Cadets, to accept, if qualified, transfer to the Army Reserve, subject to being ordered to active duty in an enlisted grade for a period not in excess of four years.

III. Marital Status

I am not married and never have been married.

_____
(Sign your full name)

Sworn to and subscribed before me at West Point, New York, this 1st day of July, nineteen hundred and sixty-eight.

_____
(Signature of Official Authorized to Administer Oaths)

Facilities

General

The military reservation at West Point consists of 16,003 acres. The original purchase of 1,770 acres was made from Stephen Moore in 1790; additional purchases made in 1824, 1879, 1889, 1903, 1905, and 1909 brought the acreage to 3,570.

From 1938 to 1945 the acreage was more than tripled by the acquisition of 11,401 acres to allow for the development and expansion of training facilities. On 1 December 1959 a gift of 1,040 acres by Mr. and Mrs. Gene Leone increased the holdings to the present total.

Of this total, 2,520 acres are the Post proper; they comprise the area lying south of Storm King Mountain between the old Storm King Highway and the Hudson River. Access to the Post proper is by three gates: the Thayer Gate (South Gate), from Highland Falls; the Lee Gate (North Gate), from the old Storm King Highway (Route NY 218); and the Washington Gate (West Gate), from the new Storm King Highway (Route US 9W).

The expansion since 1938 has been toward the west almost as far as Central Valley, N.Y., and toward the south almost as far as Route US 6. Route NY 293 runs from southwest to northeast on about the midline of the entire reservation.

Buildings

Administration Building (1909). Designed by Cram, Goodhue, and Ferguson in Gothic style. It is located on Thayer Road and contains the offices of the Superintendent, the Dean, the Academic Board, the General Staff, the Director of Admissions and Registrar, the office of the cadet hostess, and the Information Office.

Bartlett Hall (1913, 1938). Formerly the East Academic Building, it is named in memory of Col. William H. C. Bartlett, Professor of Natural and Experimental Philosophy, 1836–1871. The original building, 1913, was designed by Cram, Goodhue, and Ferguson; the east wing, 1938, by Paul Philippe Cret. Both are in Gothic style. Located between Thayer and Cullum Roads, north of the Administration Building. In addition to classrooms and laboratories it contains the offices of the Departments of Electricity, Mechanics, and Physics and Chemistry.

Cadet Chapel (1910). Designed by Cram, Goodhue, and Ferguson in Gothic style. Located west of, and 300 feet above, the cadet barracks, it dominates the Post proper. The stained glass window over the altar has 27 panels, each depicting a militant Biblical

character. The window at the entrance pictures The Revelation of St. John the Divine; it shows also the designs of the Medal of Honor and the Distinguished Service Cross. The windows in the nave are gifts of the several classes; the flags hanging in the nave were used in the War of 1812, the Mexican, Civil, and Spanish-American Wars. The Chapel Organ is the largest church organ in the Western Hemisphere, and contains over 14,000 pipes. The seating capacity is 1,500.

Central Barracks (1851, 1882, 1921). The designers of the 1851 and 1882 sections are not known, although it is likely that Maj. Richard Delafield had much to do with the design of the 1851 section and a Board of Engineers with the 1882 section. Capt. A. B. Proctor, Quartermaster Corps, designed the 1921 section. All are in Tudor style. The three sections form the three sides of a rectangle of which the East Barracks, located at Thayer and Jefferson Roads, forms the fourth side. The headquarters of the Commandant of Cadets is in a wing at the eastern end of the south section.

Chapel of the Most Holy Trinity (1900). Designed by Heins and La Farge in Gothic style. Located at Mills and Washington Roads, on a sharp rise of ground, this Roman Catholic Chapel is a copy of the St. Ethelreda Carthusian abbey parish church in County Essex, England. The Chapel, expanded in 1958 according to plans prepared by architect Alfred Reinhardt, now has a seating capacity of 550.

Cullum Memorial Hall (1899). Designed by McKim, Mead, and White in Greco-Roman style. Located on the east side of Cullum Road, across from Doubleday Field, and named after Major General George W. Cullum, USMA 1833, Superintendent 1864–1866, who gave it to house trophies of war and "statues, busts, mural tablets, and portraits of distinguished deceased officers and graduates of the Military Academy."

East Barracks (1895). Formerly the West Academic Building, located on Thayer Road opposite Bartlett Hall, designed by Richard M. Hunt in Gothic style. It was converted to cadet barracks in 1958–1959.

Field House (1939). Designed by Paul Philippe Cret. Located on Tower Road southwest of the West Shore Railroad. Used for indoor athletics.

First Class Club or The Compound (1837). Benton, Benet, Crozier Halls, formerly known as the Ordnance Compound, named for Colonel James G. Benton, USMA 1842, first Professor of Ordnance and Gunnery; for Major General Stephen Vincent Benet,

USMA 1849, the second Professor of Ordnance and Gunnery; and for Major General William Crozier, USMA 1876, a Chief of Ordnance, serves as an activity center for First Classmen and their guests.

Grant Hall (1931). A wing of the South Barracks on Thayer Road directly across from the Administration Building. It is the cadet reception hall.

Gymnasium (1910, 1933, 1937, 1947). The East Gymnasium (1910) was designed by Cram, Goodhue, and Ferguson; the North Gymnasium (1933) by the Quartermaster Corps; the West Gymnasium (1937) by Paul Philippe Cret; and the Central Gymnasium (1947) by Delano and Aldrich. All are in Gothic style. The gymnasium buildings are west of the Superintendent's quarters and north of New North Barracks.

Library (1964). Designed by Gehron and Seltzer of New York in granite-faced Gothic style. Located at Jefferson and Cullum Roads on the former site of the old Library which had outlived its usefulness. The new building will accommodate 500,000 books, reading rooms, seminar rooms, microfilm and audio-visual facilities, as well as space for military and rare book collections.

Michie Stadium (1924, 1963). The football stadium between Delafield and Mills Road, west of the reservoir, designed in 1924 by the Osborn Engineering Co., and in 1963 by Roberts and Schaefer Co., Inc. Named for 1st Lt. Dennis Mahan Michie, USMA 1892, Captain of the first West Point football team, killed in action at San Juan, Cuba in 1898. The seating capacity is 29,425.

Superintendent's Quarters (1820). Architect unknown. Designed in Colonial style, and located on Jefferson Road. Col. Sylvanus Thayer was the first Superintendent to live there. Directly to the north are the Commandant's Quarters at the southwest corner of Parke and Washington Roads.

New North Barracks (1939). Designed by Paul Philippe Cret in Gothic style. Located south of the gymansium and west of North Barracks. Sometimes called West Barracks.

New South Barracks (1961). Designed by O'Connor and Kilham, in Gothic style. The new barracks, consisting of two buildings, are located on the site formerly occupied by the north wing of the Hospital and were completed in July 1962.

North Barracks (1908). Designed by Cram, Goodhue, and Ferguson in Gothic style. Located at Jefferson Road and Scott Place. The chaplain's office is on the ground floor in the southeast corner.

Old Cadet Chapel (1837). Architect unknown. Designed in Greco-Roman style. It was located originally where Bartlett Hall now stands; in 1911 it was moved to its present site at the entrance to the cemetery. The American artist, Robert W. Weir, professor of drawing at the Academy from 1834 to 1876, painted the mural, entitled "War and Peace," on the wall behind the altar. The chapel is used now for funeral services, and for Jewish religious services. The seating capacity is about 450.

Ordnance Automotive Laboratory (1939). Designed by Paul Philippe Cret in Gothic style. Located on Howard Road.

Smith Rink (1931). The indoor ice-skating rink, located on the east side of Mills Road south of the reservoir. It is named after Maj. Gen. William R. Smith, USMA 1892, Superintendent 1928–1932.

South Barracks (1931). Designed by William Gehron in Gothic style. Located at the southwest corner of Thayer and Brewerton Roads.

Thayer Hall (1958). This is an entirely new structure, built within the walls of the old Riding Hall. The building, designed by Gehron and Seltzer of New York, is of structural steel framing with reinforced concrete, completely air conditioned, and practically windowless. Besides administrative space for the Departments of

English, Foreign Languages, Law, Mathematics, Military Art and Engineering, Military Psychology and Leadership, Ordnance, and Social Sciences, it includes 98 classrooms, the Academic Computer Center, educational TV studio, two 200-seat map-problem rooms, an 800-seat auditorium, a 1,500-seat auditorium, a materials testing laboratory, and space on the first and second floors for the Museum which was formerly in the Administration Building. Roof parking for 200 automobiles also has been provided.

United States Hotel Thayer (1926, 1948). Designed by Caugey and Evans in Tudor style. Located on the east side of Thayer Road just north of the Thayer Gate. It is owned by the Government. Including the addition completed in 1948, there are accommodations for 500 guests.

Utilities Building (1935). Designed by the Quartermaster Corps in Tudor style. Located at Ruger and Tower Roads. It contains the Post Exchange and the Commissary; and the offices of the Engineer, the Quartermaster, and the Transportation Officer.

Washington Hall (1929). Designed by William Gehron in Gothic style. Located on Jefferson Road between Central Barracks and North Barracks. It is the Cadet Dining Hall, and has a seating capacity of 2,500. The offices and drafting rooms of the Department of Earth, Space, and Graphic Sciences are on the fifth floor.

West Point Army Mess (1903, 1963). The official name of the Officers' Club. Designed by McKim, Mead, and White in Classic style. Located on Cullum Road, south of Cullum Hall.

Grounds

Camp Buckner (1945). The summer training camp for the Third Class, located on the reservation five miles southwest of the Post proper, and known formerly as Camp Popolopen. Renamed in honor of Lt. Gen. Simon Bolivar Buckner, USMA 1908, killed at Okinawa in 1945.

Clinton Field. Located immediately north of Doubleday Field and west of Fort Clinton. The name of the field derives from the Fort, named for a Revolutionary War general. Clinton Field was the site of the cadets' summer encampment from 1819 to 1942. It is used now for soccer, football, and lacrosse.

Delafield Pond. The outdoor swimming pool, located on Delafield Road. Named after Maj. Gen. Richard Delafield, USMA 1818, Superintendent, 1838–1845 and 1856–1861.

Doubleday Field (1939). Baseball field, located between Thayer and Cullum Roads, east of The Parade. Named in honor of Maj.

Gen. Abner Doubleday, USMA 1842, who is said to have laid out the first modern baseball diamond at Cooperstown, N.Y., in 1839.

Flirtation Walk. A foot trail extending three-quarters of a mile along the river from Cullum Road to Battle Monument and open only to cadets and their guests. It is probable that the early Chain Battery Walk is now included in Flirtation Walk.

Howze Field. Located directly south of Michie Stadium, and bounded by Mills Road on the east, by Howze Place on the south, and by Delafield Road on the west. A large recreation field, it was named in honor of Maj. Gen. Robert Lee Howze, USMA 1888, Commandant of Cadets, 1905–1909.

The Parade. The drill and parade field, bounded by Jefferson Road on the south and west, by Thayer Road on the east, and Washington Road on the north.

The Plain. That portion of the ground embracing The Parade, Clinton Field, and Doubleday Field.

Shea Stadium (1958). Track and field stadium, located northwest of the Field House. Named for Lt. Richard Thomas Shea, Jr., USMA 1952, captain of the 1952 track and field team, star athlete and record holder, killed in Korea in 1953 and posthumously awarded the Medal of Honor.

Postgraduate Service Life

The Mission of the United States Military Academy is designed with the ultimate end that at graduation the Cadet will accept his commission in the Regular Army, a profession endowed with rich tradition and heritage.

His military career will include a series of assignments, together with postgraduate military and civilian schooling, involving various levels of leadership responsibilities. Assignment patterns are designed to prepare him for his role as a senior or General Officer at a level where he will make maximum use of the training and experience received throughout his career.

His primary duty is leadership. He works with men and ideas. He teaches. He guides. He counsels. He leads. He is in a demanding and

responsible field involving advanced technology, sophisticated weapons, and the international implications of many of his decisions requiring a higher intellectual and education level than ever before in the Army.

In his role as an officer he will be given major responsibility at a much earlier age than in most comparable civilian careers. A general career plan within his chosen branch consists of three major periods. They are—

Basic Military Development: His first eight years commissioned service. During this period he will receive schooling in his selected branch. In addition, he will also receive specialist schooling—combat arms detail; troop duty; airborne; ranger or aviation training or assignments with service school staff and faculty. At the present time approximately two-thirds of all graduates attend advanced civilian schooling in order to obtain a Masters' Degree, depending on requirements for specialized skills and education. The top 5% of each graduating class may immediately be enrolled in an advanced schooling program upon commissioning. After graduation leave he may report directly to the college or university of his choice in order to pursue graduate studies and obtain his Masters' Degree. In some cases, dependent upon the need for specialized skills in specific fields, he may be authorized to attend further Postgraduate schooling leading to award of a Doctorate.

Intermediate Professional Development: Normally from nine to fifteen years service. Troop command, staff assignments, schooling and a variety of assignments at all levels of command typify this portion of his career. Eligible officers may attend one or more of several schools: Command and General Staff College; Armed Forces Staff College and if not already received, Postgraduate schooling at a civilian college or university. The assignments he receives during this period are designed to broaden his understanding of the over-all role of the Army, and to further his professional development.

Advanced Development: Usually sixteen to twenty-three years service. He will be performing high level staff and command duty during these rewarding years. Outstanding officers will have an opportunity to attend a Senior Service College such as: The Army War College; The National War College; The Industrial College of the Armed Forces; Navy and Air Force War Colleges and three foreign War Colleges. Near the end of this point in his career, those truly outstanding officers are selected for promotion to General Officer grade. It is at this time when his military career is at its' peak point and he makes his major professional contribution. His

command and staff positions at this level will normally be of the highest responsibility determined by his experience and ability.

The military career from graduation to retirement is one of challenge, satisfaction and service to country and fellow man. It offers opportunities to extend the officer to the limits of his abilities, opportunities to advance himself to positions of important leadership and a sense of pride in the role he will play in the Army tradition of National Defense.

This brief comment concerning military life is primarily designed to advise the prospective candidate that graduation from the United States Military Academy is the first step in his mental, moral, physical and Military preparation to assume the role of a commissioned officer in the Regular Army of the United States.

"Yours is the profession of arms . . . . the will to win . . . the sure knowledge that in war there is no substitute for victory, that if you lose, the nation will be destroyed, that the very obsession of your public service must be duty, honor, country."

General Douglas MacArthur, May 12th, 1962, On the occasion of farewell address to the Men of West Point . . . .

Appendices

		Page
Honor Code	A	153
PAE Examples	B	155
Medical Considerations	C	156
Board of Visitors	D	169
Association of Graduates	E	171
West Point Alumni Foundation	F	175
Listing of Superintendents	G	178
Officers of Instruction, Research and Administration	H	181
Map	I	202
Location	J	204
Index	K	205

THE HONOR CODE

The development of character and integrity in the members of the Corps of Cadets is a basic objective of the Academy. The Cadet Honor Code and System are officially recognized as primary means through which this objective is attained.

From the earliest days of recorded history it has been universally recognized that unquestioned integrity is an essential trait of the military leader. Colonel Sylvanus Thayer, the father of the Military Academy, determined that the Academy should produce leaders whose foundation was built on honor, integrated with a strong sense of discipline and excellence of knowledge. Since his day the role of honor has been maintained by the Corps and fostered by the authorities of the Academy. General Douglas MacArthur, shortly after World War I, was instrumental in formalizing the Honor Code and System and making them officially sanctioned means of building character. Today, the Honor Code is a most cherished possession of the Corps of Cadets and of the "Long Gray Line" of graduates.

The Honor Code has never outgrown its original and simple meaning—that a cadet will not lie, cheat, or steal. The Code requires complete integrity in both word and deed of all members of the Corps and permits no deviation from those standards. Not only is the cadet expected to tell the truth on all occasions but also to avoid quibbling or evasive statements. In the classroom a cadet does his own work. Under no circumstances will he take unfair advantage of his classmates. The maintenance of these high honor standards is the responsibility of each cadet, and each cadet is expected to report himself or any other cadet for violations of the Honor Code. These exacting standards are rigidly enforced, and any intentional violation by a cadet is cause for separation from the Military Academy.

The Honor System is an integral part of the Honor Code and is the method by which the Honor Code is applied in the highly organized life of a cadet. As an example, cadets may account for their absence from their rooms simply by marking their absence cards. This marking is accepted as the cadet's word that his absence is authorized, and that he will take no advantage of this privilege. Cadets are also often required to indicate by signature that they have complied with official instructions. These devices are part of the Honor System that requires the cadet to make decisions based on his sense of honor many times a day during his 4 years at the Academy. In this respect the Honor System serves as a training

vehicle to instill within each cadet the desire to abide by the precepts of the Honor Code.

For its success the Honor Code depends upon the Corps. The Cadet Honor Committee, elected by the Corps, monitors the operation of the Honor Code and System. It explains to the Corps the principles upon which the Code is based and guards against practices inconsistent with that Code. Thus, this Committee insures that the high standards of the Code are maintained and transmitted, undiluted, from class to class. Its procedures follow a set pattern, and its members have responsible authority. The Committee has no punitive powers, its functions being entirely investigative and advisory. If the Committee reports a cadet to the Commandant for an honor violation, the Commandant takes appropriate official action to insure that the standards of the Code are upheld while protecting the rights of the cadet in accordance with the provisions of the Uniform Code of Military Justice.

One of the Honor Committee's most important tasks is to supervise the indoctrination of the New Cadets in the principles of the Code. This indoctrination is both intensive and continuous and includes informal discussions as well as scheduled lectures. New Cadets are expected to adhere to the same standards as other cadets under the Honor Code. It is soon apparent to New Cadets that all members of the Corps share an inherent pride in upholding the exalted position of the Code. This observation, coupled with the indoctrination program, raises the varying standards of honor of an entering class to the uniformly high plane which the Corps has established and expects from its members.

The devotion of the Corps to the Honor Code is especially strong. In the opinion of both cadets and graduates, it is a particularly vital part of their education, training, and character-building at the Academy and makes a lasting impression on them.

EXAMPLES OF PHYSICAL APTITUDE EXAMINATION TESTS

A combination of the following tests, which result in the candidate using all of his physical facilities, constitutes the Physical Aptitude Examination of the Military Academy.

(1) Medicine Ball Put. Put a six pound medicine ball for distance using the same movement as required for a shot put.
(2) Chinups. From the arm hang position on a horizontal bar, palms toward the face, elevate the body until the chin is above the bar.
(3) Pullups. Same as chinups except palms away from the face.
(4) Situps. Perform as many situps as possible in two minutes.
(5) Hurdle Run, Zig Zag Run, and Dodge Run. Run through a maze of hurdles on a gymnasium floor for time.
(6) Shuttle Run. Run between two turning blocks, 25 yards apart, to cover distances from 100 to 400 yards.
(7) Squat Thrust. Continuous movements for 20 seconds from the standing position to the squat, to the leaning rest, to the squat, and back to the standing position.
(8) Vertical Jump. Jump for height.
(9) Standing Broad Jump. One jump for distance.
(10) Three Broad Jumps. Three successive broad jumps for distance.
(11) Rope Climb. Climb a regular gymnasium rope as high as possible in seven seconds using hands and feet or hands alone, starting from a standing position.
(12) Instep Touch. From the arm hang position on a horizontal bar, bring the insteps up to touch the bar.
(13) Hop, Step and Jump. With a ten foot start to the takeoff line, take a hop, a step, and a jump in a continuous movement for distance.
(14) Basketball Throw. Throw a regulation basketball for distance from either a standing or kneeling position.
(15) Basketball Pass. Pass a basketball against a wall for speed and accuracy.
(16) Block Shuttle Run. In a shuttle run, pick up blocks and place them on designated spots.
(17) Dips. Raising and lowering oneself on parallel bars with the arms.
(18) Pushups. Standard pushups starting from the leaning rest position.

SPECIAL MEDICAL CONSIDERATIONS

Medical Examination and Disqualifications

The medical examination is the means whereby an individual's medical qualification for appointment to the service academies is determined. Medical examinations are conducted at designated examining centers (Army, Navy, Air Force) located throughout the United States and at designated overseas bases. One standardized examination is used by all service academies. Examinations to be considered as final qualifying examinations must be taken on or after 1 July of the year preceding the year of admission. Examinations taken prior to 1 July of the year preceding the year of admission are acceptable only as preliminary examinations, and the applicant will be required to complete another medical examination should he receive a formal nomination. The applicant must contact the medical facility and request an appointment to have the *qualifying medical examination.* Facilities authorized to conduct qualifying medical examinations are listed on page 165 of this catalogue.

Medical Examinations Taken for Other Service Academies

The medical qualifying examination for the Military, Naval, and Air Force Academies is the same although the standards differ somewhat due to the commissioning requirements of the three services. If a candidate for the Military Academy desires to have copies of his examination forwarded for consideration by the Navy or the Air Force, he must request the Chief of the Examining Facility to do so at the time he is examined. For the Naval Academy a candidate should request copies to be sent to: The Board of Medical Examiners, United States Naval Academy, Annapolis, Maryland. In the case of the Air Force Academy a candidate should request copies be sent to: The Director of Admissions, United States Air Force Academy, Colorado Springs, Colorado. A candidate who takes a qualifying medical examination for another Service Academy and desires that it be used in support of his Military Academy nomination must take steps analogous to those indicated above. The copies should be sent to: The Surgeon General, Department of the Army, ATTN: Physical Standards Branch, Washington, D.C. 20315. It is the candidate's responsibility to insure that the examination results are so forwarded.

Review and Waiver Procedures

The results of all medical examinations are subject to review by the medical departments of the appropriate service. The reviewing authority for the U.S. Military Academy is The Surgeon General,

Department of the Army. Within eight weeks following medical examination, the candidate should receive notification of the results. All inquiries pertaining to final medical qualification should be directed to The Adjutant General, Department of the Army, ATTN: AGPB–M, Washington, D.C., 20315. The Navy and Air Force Academies are the reviewing authorities for their respective services. Medical qualification decisions made by the reviewing authorities are final. In this respect, where the disqualifying defect is subject to medical or dental correction, the candidate may be temporarily rejected subject to later certification by a physician or dentist that the defect has been corrected with complete restoration of function. Such certification must be in the hands of the reviewing authority as soon as possible, but in any case, no later than 15 March.

Applicant Actions

It is strongly recommended that applicants arrange for another person to drive them to the testing center. Certain tests may preclude driving for several hours after the examination is completed and result in unnecessary delays. Applicants who wear contact lenses must remove them a minimum of 72 hours prior to the examination.

Candidates are encouraged to undergo a thorough medical and dental examination by their private physician and dentist before pursuing nomination and before taking a qualifying medical examination. This will serve to identify obviously disqualified applicants or those who may have remediable defects which must be corrected, at the candidate's expense, prior to taking the qualifying medical examination.

It must be clearly understood that a medical examination by the applicant's civilian physician is a preliminary and exploratory one *only* and cannot be considered as a qualifying examination. Only examinations given at Army, Navy or Air Force medical facilities are acceptable as a qualifying examination.

Special Medical Examination Considerations and Disqualifications

Disqualifying medical conditions as set forth below are for use as a guide by the physician and dentist in determining medical disqualification or remediable medical and dental conditions. Reference should be made to the regulations of the applicable service for specific details as to standards of medical fitness as pertain to the Army, Navy, or Air Force.

Medical History

The medical history will be compiled with particular care with

elaboration where indicated. Full and complete documentation of all illnesses, injuries and operations which the applicant may have incurred is absolutely necessary since failure to do so may result in disappointment when medical disqualification is determined later. A history of familial diseases will be thoroughly investigated. Medical care which has significantly affected the applicant's medical status must be documented and supported by statements from the attending physician or from hospital records concerning the medical care.

Height and Weight Standards

The weight standards as noted are necessarily arbitrary and as a general rule will not be waivered. However, when a generally large bony structure and large well-distributed and proportioned muscle masses with little evidence of thick layers of subcutaneous fat account for the apparent excessive weight, exception to the standards may be granted. Underweight conditions will not be waivered. Gross obesity is a disqualifying factor until such time as excess weight is lost. In any event, each case will be judged on its own merits. Heights should be measured to the nearest half inch. Standards of weight according to height are as follows:

Height (inches)	U.S. Military Academy		Navy and Air Force	
	Minimum	Maximum	Minimum	Maximum
64 (A)	105	183	112	160
65 (A)	106	187	115	165
66 (B)	107	191	115	176
67	111	196	119	180
68	115	202	122	186
69	119	208	127	191
70	123	214	131	197
71	127	219	135	202
72	131	225	139	208
73	135	231	143	215
74	139	237	147	219
75	143	243	151	224
76	147	248	155	229
77	151	254	159	235
78	153	260	162	240
79 (A) (C)	.....	.....	169	245
80 (A) (B) (C)	.....	.....	173	250

(A) USMA—A range in height from 66″ to 78″ inclusive is required. A waiver for overheight or for up to 2″ below the minimum height, may be considered by the Department of the Army provided the candidate possesses exceptional educational qualifications or has an outstanding military record, or has demonstrated outstanding abilities.

(B) Air Force—Minimal height is 66 inches. Maximum is 80 inches. On the recommendation of the Superintendent USAFA, these standards may be waived.

(C) USNA—Waiver for height up to 80″ may be granted to a limited number of candidates with exceptional scholastic and leadership achievements.

Eyes and Vision Disqualifications

VISION

USMA	USNA	USAFA*
Any visual acuity must correct to 20/20 with glasses (See refractive error).	Uncorrected vision exceeding 20/20 each eye.	Uncorrected vision exceeding 20/20 each eye. (See refractive error).

*Uncorrected far visual acuity up to 20/50 each eye which corrects to 20/20 with lenses will be considered qualifying for flying other than pilot.

USMA	USNA	USAFA
MUSCLE BALANCE		
1. *Esophoria* over 15 prism diopters.	No requirement.	*Esophoria* over 10 prism diopters.
2. *Exophoria* over 10 prism diopters.	No requirement.	*Exophoria* over 5 prism diopters.
3. *Hyperphoria* over 2 prism diopters.	No requirement.	*Hyperphoria* over 1 prism diopter.
4. Strabismus (Tropia) disqualifying for all candidates.		
COLOR VISION		
Must be able to distinguish vivid red and vivid green.	Normal color perception.	Normal color perception.
CYCLOPLEGIC REFRACTION		
All candidates.	All candidates.	All candidates.
REFRACTIVE ERROR		
1. *MYOPIA* Exceeding −5.50 diopters in any meridian.	No requirement.	Exceeding −.25 diopters in any meridian.
2. *HYPEROPIA* Exceeding +5.50 diopters in any meridian.	No requirement.	Exceeding +1.75 diopters in any meridian.
3. *ASTIGMATISM* Exceeding + or −3.00 diopters.	No requirement.	Exceeding + or −.75 diopters.
4. *ANISOMETROPIA* Exceeding 3.50 diopters.	No requirement.	Exceeding 3.50 diopters.
CONTACT LENSES		
Removed 72 hours prior to examination.	Removed 72 hours prior to examination.	Removed 72 hours prior to examination.

WAIVER		
No requirement.	20/40 vision corrected to 20/20 and exceptional scholastic and leadership achievement.	Visual acuity not exceeding 20/200 correctible to 20/20 and outstanding academic or leadership achievement.

Ears and Hearing Disqualifications

The auditory acuity of all candidates will be determined by the use of the audiometer. Maximum allowable loss in decibels and the frequencies noted is as follows:

HEARING LOSS

(AMERICAN STANDARD CALIBRATION)

FREQUENCY	500 512	1000 1024	2000 2048	3000 2896	4000 2096	6000 ----	8000 8192
MAXIMUM LOSS IN DECIBELS							
Right Ear	15	15	15	* ** ***	40 ** ***	* **	* ***
Left Ear	15	15	15	* ** ***	40 ** ***	* **	* ***

* *U.S. MILITARY ACADEMY*—Not standardized or no requirement.

** *AIR FORCE ACADEMY*—3000, 4000 and 6000 frequency range will be tested. Average of 35 decibels for each ear at 3000, 4000, 6000, i.e., a total of 210 decibels for the six thresholds is disqualifying.

****NAVAL ACADEMY*—Hearing loss greater than 35 decibels at the 3000 frequency is disqualifying. Record the 4000 and 8000 frequency is disqualifying. Record the 4000 and 8000 frequencies for baseline only.

Both ears must be free from any disfiguring or incapacitating abnormalities. Other causes for rejection are: Existing perforations of the tympanic membrane regardless of etiology. Exostosis or other form of canal blockage resulting in examiner's inability to effectively view the tympanic membrane, may be cause for rejection.

Nasal Disqualifications

Any congenital or acquired lesion which interferes with the functions of the nasopharynx or eustachian tubes. Septal deviation, hypertrophic rhinitis, nasal polyps or other conditions which result in 50% or more obstruction to either airway or obstruction to drainage of any sinus. Allergic rhinitis not controllable by antihistamines or by desensitization, or both is disqualifying for the U.S. Military Academy. History of acute or chronic sinusitis will be evaluated thoroughly and completely.

Lung and Chest Disqualifications

Tuberculosis active in past 5 years. Pneumothorax regardless of etiology or history thereof is disqualifying for the U.S. Military Academy. Spontaneous pneumothorax within past 3 years or history of repeated episodes is disqualifying for the Air Force and Naval Academies. Chronic bronchitis, bronchiectasis. Congenital malformations that result in reduced chest capacity with associated diminution of respiratory reserve, absence of the clavicle, ununited fractures of the clavicle that would interfere with carrying military equipment. Coccidioidomycosis unless healed without residual.

Allergic Disqualifications

Asthma or a history of asthma, except a history of childhood asthma with a trustworthy history of freedom from symptoms since the 12th birthday, is a cause for rejection. A history of allergic rhinitis past the 12th year, including those cases in which desensitization therapy has been initiated, will be evaluated thoroughly. In many cases a specialty consultation in allergy will be required. Also see Nasal Disqualifications.

Skin Disqualifications

Psoriasis, even if moderate in degree. Acne, moderately severe or resultant scarring severe enough to interfere with wearing of personal military equipment or disfiguring scarring. Chronic skin disease such as severe eczema or unsightly congenital markings. Bromidrosis which is more than mild. Pilonidal cyst if evidenced by presence of mass or discharging sinus. History of pilonidal cystectomy within the two years previous to examination is also disqualifying for the Air Force and Naval Academies. Extensive deep or adherent scars that interfere with movement or wearing of military equipment.

Heart and Vascular System Disqualifications

An electrocardiogram is required of all applicants. Electrocardiographic abnormalities will be evaluated to determine if an organic basis exists. A history of rheumatic fever will require a thorough investigation including detailed history, fluoroscopic examination of the heart and an x-ray film in addition to a careful general medical examination. All murmurs will be evaluated thoroughly and indicated as functional or organic in origin. Any evidence of organic heart disease is unequivocally disqualifying. All valvular disease of the heart, including that which has been improved by surgery. Blood pressure greater than 139 millimeters or diastolic pressure greater than 89 will be cause for extensive

evaluation to determine if persistent hypertension exists. Hypertension evidenced by preponderant readings of 140-mm or more systolic or preponderant diastolic pressure of over 90-mm. Heart rate greater than 100 on repeated examinations will be cause for further evaluation. Varicosities of any extremities if severe or symptomatic unless mild in degree or correctable by treatment.

Genitourinary System Disqualifications

Persistent albuminuria of any type to include so-called orthostatic albuminuria or the persistence of casts in the urine, even though the etiology cannot be determined, will be cause for rejection. Phimosis, epispadias, or pronounced hypospadius severe enough to interfere with micturition. Amputation of the penis, infantile genitalia, atrophy, absence, deformity or maldevelopment of *both* testicles, or undescended testicle of any degree unless surgically corrected. Chronic orchitis or epididymitis. Chronic kidney diseases. Repeated attacks of renal calculi.

Serologic Test

A serologic test for syphilis is required for all applicants.

Abdomen Disqualifications

Weakness of abdominal wall sufficient to interfere with function. Hernias of any type unless surgically corrected. History of operation for hernia within past 60 days is temporarily disqualifying. Chronic diseases of abdominal viscera. History of gastric or duodenal ulcer. Acute or chronic gallbladder disease. History of splenectomy for any reason other than trauma.

Orthopedic Disqualifications

Ununited fractures, old joint fractures with evidence of arthritis. Pes planus more than mild, symptomatic, or with marked bulging of the inner border due to rotation or eversion of the astragalus and any callosities. Pes cavus with clawing of the toes and calluses beneath the metatarsal heads can be cause for rejection. Hammertoes of such degree as to interfere with function or wearing of suitable footwear. Other conditions of the feet which would interfere with successful compliance with military routine. History of derangement of knee joint not corrected by surgery if symptomatic within one year preceding examination. Six months must elapse after knee surgery before final evaluation. Post operative instability, stiffness, traumatic arthritis, muscle atrophy or weakness will be thoroughly evaluated, and may be cause for rejection.

Spine and Musculoskeletal Disqualifications

Lateral deviation of the spine (scoliosis) from the midline of more than one inch. Old vertebral fractures. Curvature of the spine of any degree in which there is noticeable deformity when the applicant is dressed. Spondylolisthesis. Gout. Deficient muscular development. Tuberculosis of spine, active or healed. Acute or chronic back problems which would interfere with routine military duties. History of herniated nucleus pulposus or surgical correction of such a condition is cause for disqualification.

Extremities Disqualifications

Total loss of either thumb. Loss of other digits sufficient to interfere with function. Loss of either great toe.

Neurological Disqualifications

History of head injury resulting in unconsciousness will be thoroughly evaluated. Lengthy periods of unconsciousness will require a complete neurological consultation to include electroencephalogram. Degenerative disorders, convulsive disorders, even though controlled by medication. Residuals of infection (polio, meningitis, etc.). Miscellaneous disorders such as tics, spasms and spina bifida, if associated with neurological manifestations. All periods of amnesia will be evaluated thoroughly and completely regardless of length. History of unexplained unconsciousness. Multiple episodes of syncope (fainting). Documented history of migraine headaches or chronic headaches of such a nature as to interfere with daily functions or requiring medical treatment. A history of multiple episodes of air sickness (air, sea, swing, train, or carnival ride), will be thoroughly evaluated and may be cause for rejection.

Psychiatric Disqualifications

History of emotional instability, psychosis, anxiety reaction or dissociative reaction. Pathologic personality types; other obsessive compulsive reactions or neurotic depressive reaction. Addiction to alcohol or drugs. Anti-social behavior. Sexual deviation. Immaturity reaction if marked; situational maladjustment. Multiple episodes of somnambulism after 10 years of age. Multiple episodes of enuresis (bedwetting) after 10 years of age unless proven to have an organic basis. Stammering or stuttering past the age of 10 years. History of attempted suicide. Other disorders of emotion, behavior, thought, intelligence, or mood, difficult to define, will be thoroughly evaluated and may be cause for rejection.

Endocrine and Metabolic Disqualifications

Diabetes mellitus is disqualifying for the U.S. Military Academy. Diabetes mellitus or history of diabetes mellitus in both parents is disqualifying for the Air Force and Naval Academies. Persistent glycosuria including renal glycosuria is disqualifying. Exophthalmic or adenomatous goiter, from any cause associated with toxic symptoms. History of thyroidectomy. History of partial thyroidectomy will be cause for thorough evaluation and may be disqualifying. Other endocrine or metabolic disorders which preclude satisfactory performance of duty or which would require long term treatment.

Dental Disqualifications

1. Carious teeth which are unfilled or improperly filled.
2. Appliances below standards of design, construction and tissue adaptation.
3. Insufficient natural teeth to adequately stabilize a lower partial denture.
4. Grossly disfiguring spacing of anterior teeth.
5. Insufficient opposing natural or artificial teeth to permit mastication of normal diet.
6. Diseases of the jaws or associated structures such as cysts, tumors, and chronic infections which are not easily remedied and which will incapacitate the individual.
7. A relationship between the mandible and maxilla which will preclude satisfactory prosthodontic replacement should it become necessary to remove any or all of the remaining natural teeth.
8. Orthodontic appliances attached to the teeth for continued treatment (retainer appliances are acceptable).

Dental Requirements

1. Candidates will be responsible for the treatment and/or correction of the following conditions prior to reporting to West Point: decayed teeth and other pathology effecting the hard or soft tissues of the mouth; periodontal involvement of the teeth and chronic gingival irritation; defective fabricated crowns and other individual restorations; defective fixed bridges; full and partial dentures. Active orthodontic appliances must be removed. However, orthodontic retainer appliances are acceptable.
2. It is recommended that dental care be completed within 3 months prior to reporting for admission. and requested that a statement from your dentist attesting to the completion of treatment be turned in to the service during your first vist to the Dental Clinic, scheduled shortly after your arrival.

ALABAMA

Daleville—Fort Rucker
Mobile—Brookley AFB
Montgomery—Maxwell AFB

ALASKA

Adak—U.S. Naval Station
Anchorage—Elmendorf AFB, Fort Richardson
Kodiak—U.S. Naval Station

ARIZONA

Chandler—Williams AFB
Cochise County—Fort Huachuca
Tucson—Davis-Monthan AFB

ARKANSAS

Blythesville—Blythesville AFB
Jacksonville—Little Rock AFB

CALIFORNIA

Alameda—U.S. Naval Air Station
Camp Pendleton
Edwards—Edwards AFB
El Centro—U.S. Naval Air Facility
Fairfield—Travis AFB
Ignacio—Hamilton AFB
Imperial Beach—U.S. Naval Auxiliary Air Sta., Ream Fld.
Lemoore—U.S. Naval Air Station
Lompoc—Vandenberg AFB
Long Beach—U.S. Naval Hospital
Los Alamitos (Long Beach)—U.S. Naval Air Station
Marysville—Beale AFB
Merced—Castle AFB
Moffett Field—U.S. Naval Air Station
Monterey—Fort Ord, U.S. Naval Air Facility
Oakland—U.S. Naval Hospital
Point Mugu—U.S. Naval Missile Ctr
Riverside—March AFB
Sacramento—Mather AFB
San Bernardino—Norton AFB
San Diego (Miramar)—U.S. Naval Air Station; (North Island)—Naval Air Station, U.S. Naval Hospital
San Francisco—Letterman GH
Santa Ana—U.S. Marine Corps Air Sta El Toro
Victorville—George AFB

COLORADO

Colorado Springs—USAF Academy
Denver—Fitzsimons GH, Lowry AFB

DELAWARE

Dover—Dover AFB

FLORIDA

Cecil Field—U.S. Naval Air Station
Homestead—Homestead AFB
Jacksonville—U.S. Naval Air Station, U.S. Naval Hospital
Key West—U.S. Naval Air Station
Panama City—Tyndall AFB
Pensacola—U.S. Naval Hospital
Sanford—U.S. Naval Air Station
Tampa—MacDill AFB
Valparaiso—Eglin AFB
Whiting Field—U.S. Naval Air Station

GEORGIA

Albany—Turner AFB
Atlanta—Fort McPherson, U.S. Naval Air Station
Columbus—Fort Benning
Glynco—U.S. Naval Air Station
Groveton—Fort Gordon
Hinesville—Fort Stewart
Valdosta—Moody AFB
Warner Robins—Robins AFB

HAWAII

Honolulu—Hickam AFB, Tripler GH

IDAHO

Mountain Home—Mountain Home AFB

ILLINOIS

Belleville—Scott AFB
Glenview—U.S. Naval Air Station
Great Lakes—U.S. Naval Hospital
Highland Park—Fort Sheridan
Rantoul—Chanute AFB

INDIANA

Indianapolis—Fort Benjamin Harrison
Peru—Bunker Hill AFB

KANSAS
Junction City—Fort Riley
Leavenworth—Fort Leavenworth
Olathe—U.S. Naval Air Station
Topeka—Forbes AFB
Wichita—McConnell AFB

KENTUCKY
Hardin County—Fort Knox

LOUISIANA
Alexandria—England AFB
New Orleans—U.S. Naval Air Station
Shreveport—Barksdale AFB

MAINE
Bangor—Dow AFB
Brunswick—U.S. Naval Air Station
Limestone—Loving AFB

MARYLAND
Andrews AFB—U.S. Naval Air Facility
Annapolis—U.S. Naval Academy
Camp Springs—Andrews AFB
Odenton—Fort George G. Meade
Patuxent—U.S. Naval Air Station

MASSACHUSETTS
Ayer—Fort Devens
Boston—Boston Army Base
Chelsea—U.S. Naval Hospital
Chicopee Falls—Westover AFB
Falmouth—Otis AFB
South Weymouth—U.S. Naval Air Station

MICHIGAN
Grosse Ile—U.S. Naval Air Station
Gwinn—KI Sawyer AFB
Kincross—Kincheloe AFB
Mount Clemens—Selfridge AFB
Oscoda—Wurtsmith AFB

MINNESOTA
Minneapolis—U.S. Naval Air Station

MISSISSIPPI
Biloxi—Keesler AFB
Columbus—Columbus AFB
Meridian—U.S. Naval Auxiliary Station

MISSOURI
Grandview—Richards-Gebaur AFB
Knob Noster—Whiteman AFB
Waynesville—Fort Leonard Wood

MONTANA
Glasgow—Glasgow AFB
Great Falls—Malmstrom AFB

NEBRASKA
Omaha—Offutt AFB

NEVADA
Las Vegas—Nellis AFB

NEW HAMPSHIRE
Portsmouth—Pease AFB, U.S. Naval Hospital

NEW JERSEY
Lakehurts—U.S. Naval Station
Oceanport—Fort Monmouth
Wrightstown—Fort Dix, McGuire AFB

NEW MEXICO
Alamagordo—Holloman AFB
Albuquerque—Kirtland AFB
Clovis—Cannon AFB
Roswell—Walker AFB

NEW YORK
Newburgh—Stewart AFB
New York—U.S. Naval Air Station
Plattsburgh—Plattsburgh AFB
Rome—Griffiss AFB
St. Albans, L.I.—U.S. Naval Hospital
West Hampton Beach, L.I.—Suffolk County AFB
West Point—U.S. Military Academy

NORTH CAROLINA
Camp Lejeune—U.S. Naval Hospital
Cherry Point—U.S. Marine Corps Air Station
Fayetteville—Fort Bragg
Goldsboro—Seymour Johnson AFB
New River—U.S. Marine Corps Air Facility

NORTH DAKOTA
Minot—Minot AFB
Mekinock—Grand Forks AFB

OHIO
Columbus—Lockbourne AFB
Dayton—Wright-Patterson AFB

OKLAHOMA

Altus—Altus AFB
Burns Flat—Clinton-Sherman AFB
Lawton—Fort Sill
Oklahoma City—Tinker AFB

OREGON

Portland—Portland International Airport

PENNSYLVANIA

Carlisle—Carlisle Barracks
Johnsville—U.S. Naval Air Facility
Philadelphia—U.S. Naval Hospital
Phoenixville—Valley Forge GH
Willow Grove—U.S. Naval Air Station

RHODE ISLAND

Newport—U.S. Naval Hospital, U.S. Naval Station
Quonset Point—U.S. Naval Air Station

SOUTH CAROLINA

Beaufort—U.S. Marine Corps Air Station, U.S. Naval Hospital
Charleston—Charleston AFB, U.S. Naval Hospital
Columbia—Fort Jackson
Sumter—Shaw AFB

SOUTH DAKOTA

Rapid City—Ellsworth AFB

TENNESSEE

Clarkesville—Fort Campbell
Memphis—U.S. Naval Hospital, U. S. Naval Air Station
Smyrna—Sewart AFB

TEXAS

Abilene—Dyess AFB
Amarillo—Amarillo AFB
Austin—Bergstrom AFB
Beeville—U.S. Naval Aux Air Station
Big Spring—Webb AFB
Corpus Christi—U.S. Naval Hospital, U.S. Naval Air Station
Dallas—U.S. Naval Air Station
Del Rio—Laughlin AFB
El Paso—William Beaumont GH
Fort Worth—Carswell AFB
Kingsville—U.S. Naval Air Station
Killeen—Fort Hood
Laredo—Laredo AFB
Lubbock—Reese AFB
San Antonio—Fort Sam Houston, Lackland AFB, Randolph AFB
Sherman—Perrin AFB
Wichita Falls—Sheppard AFB

UTAH

Ogden—Hill AFB

VIRGINIA

Fairfax County—Fort Belvoir
Hampton—Langley AFB
Lee Hall—Fort Eustis
Norfolk—U.S. Naval Air Station
Old Point Comfort—Fort Monroe
Petersburg—Fort Lee
Portsmouth—U.S. Naval Hospital
Quantico—U.S. Marine Corps Air Station, U.S. Naval Hospital
Virginia Beach—U.S. Naval Air Station

WASHINGTON

Bremerton—USNH
Oak Harbor—U.S. Naval Air Station.
Seattle—U.S. Naval Air Station
Spokane—Fairchild AFB
Tacoma—Fort Lewis, McChord AFB

WYOMING

Cheyenne—Francis E. Warren AFB

DISTRICT OF COLUMBIA

Washington—Walter Reed GH

CANAL ZONE

Balboa—Albrooke AFB
Fort Clayton
Rodman—U.S. Naval Station

CUBA

Guantanamo Bay—U.S. Naval Hospital

ENGLAND

London—U.S. Naval Support Activity
Middlesex—RAF West Ruislip

GERMANY
Heidelberg—USAH
Wiesbaden—Wiesbaden AB

GUAM
U.S. Naval Hospital

ITALY
Naples—U.S. Naval Support Activity

JAPAN
Camp Zama
Honshu—Tachikawa AB
Sasebo—Fleet Activities
Yokosuka—U.S. Naval Hospital

NEWFOUNDLAND
Argentia—U.S. Naval Station
Stephenville—Ernest Harmon AFB

PHILIPPINES
Luzon—Clark AFB
Subic Bay—U.S. Naval Station

PUERTO RICO
Aguadilla—Ramey AFB
San Juan—Rodriguez AH

SPAIN
Rote—U.S. Naval Air Station
Torrejon—AFB

GH—General Hospital, AH—Army Hospital, AFB—Air Force Base

BOARD OF VISITORS

The Board of Visitors to the United States Military Academy was created not long after the founding of the institution itself. On 1 July 1815, the Secretary of War, William H. Crawford, approved "A Regulation for the Government of the Military Academy" providing for the appointment of a Board to consist of five "competent gentlemen," under the presidency of the Superintendent. The Board was instructed to attend each of the annual and semiannual examinations at West Point and report thereon to the Secretary.

At present the Boards are appointed under the provisions of an Act of Congress approved 29 June 1948. This act specifies that a Board of Visitors shall visit the Military Academy each year and inquire into the state of morale and discipline, curriculum, instruction, physical equipment, fiscal affairs, academic methods, and other matters relating to West Point which the Board may decide to consider, and submit a written report to the President of the United States giving its views and recommendations pertaining to the United States Military Academy. The personnel of the Board, the Act provides, shall be as follows:

a. The Chairman of the Committee on Armed Services of the Senate, or his designee;

b. Three other Members of the Senate to be appointed by the Vice President, two of whom shall be members of the Committee on Appropriations of the Senate;

c. The Chairman of the Committee on Armed Services of the House of Representatives, or his designee;

d. Four other Members of the House of Representatives to be appointed by the Speaker of the House of Representatives, two of whom shall be members of the Committee on Appropriations of the House of Representatives;

e. Six persons to be appointed by the President.

BOARD OF VISITORS 1967

Appointed by the President of the United States: General James F. Collins, USA (Ret), President, American National Red Cross; Dr. Frederick L. Hovde, President, Purdue University; Mr. Frederick R. Kappel, Chairman of the Board, American Telephone and Telegraph Company (Ret); Dr. Frank A. Rose, President, University of Alabama; Mr. James A, Suffridge, President, Retail Clerks International Association, AFL–CIO; Major General Leif J. Sverdrup, USAR (Ret), Chairman of the Board, Sverdrup and Parcel and Associates, St. Louis, Missouri.

Appointed by the Vice-President of the United States: Senator Jacob K. Javits; Senator John C. Stennis; Senator Strom Thurmond.

Appointed by the Speaker of the House of Representatives: Representative Glenard P. Lipscomb; Representative William H. Natcher; Representative Alexander Pirnie; Representative Olin E. Teague.

Ex-Officio Members of the Board: Senator Richard B. Russell (represented by Senator Thomas J. McIntyre); Representative L. Mendel Rivers (represented by Representative Lucien N. Nedzi).

ASSOCIATION OF GRADUATES

The Association of Graduates, USMA, is a voluntary membership organization open to all graduates of the Military Academy and to former cadets who were honorably discharged after at least one academic term at the Academy. Over 95 percent of the 18,634 living graduates, and many former cadets who did not graduate, are members.

The Association was founded at New York City in 1869 under the personal leadership of Brig. Gen. Sylvanus Thayer, USMA 1808, and Maj. Gen. Robert Anderson, USMA 1825, hero of Fort Sumter. Annual meetings have been held at West Point during June Week since 1870. Its purpose is "To acquire and disseminate information on the history, activities, objectives, and methods of the Military Academy; to acquire and preserve historical materials relating to that institution; and to encourage and foster the study of military science there by worthy young men."

The Bureau of Internal Revenue has ruled that the Association is tax-exempt and all gifts, contributions, donations, and bequests thereto are likewise exempt from taxation. The Association of Graduates is the only organization through which alumni as a body can contribute their time, effort, and money toward the enhancement of their Alma Mater.

Under the aegis of the Association four annual events have grown to become important traditions. At the Alumni Parade in June Week the Long Gray Line, led by the Superintendent, the President of the Association of Graduates, and the Oldest Graduate Present, marches from Cullum Memorial Hall to Thayer Monument. There, in the presence of the Corps and a multitude of visitors, homage is paid to the "Father of the Military Academy" and to the memory of those graduates who died during the preceding year. It has been said that this gathering of alumni represents, by those attending, more United States history than any other group of similar size.

Homecoming Day is celebrated annually in the Fall at one of the home football games. This occasion, which was first established in 1958, has proved quite successful and as it is now the scheduled reunion period for the more senior classes. It affords the alumni a second annual opportunity to visit their Alma Mater and renew old acquaintances. In addition to the football game, there are a Thayer monument ceremony and a review in honor of the alumni by the Corps of Cadets.

Founders Day, 16 March, is celebrated at West Point and at nearly 150 other places throughout the world. These celebrations

traditionally include a dinner, attended by all alumni within commuting distance, and speeches by the oldest and youngest graduates present. The Association of Graduates supports these annual celebrations in many ways.

Each year since 1958 the Association of Graduates has presented the Sylvanus Thayer Award, a gold medal, to the United States citizen whose record of service to his country exemplifies devotion to the principles expressed in the motto of West Point—"Duty, Honor, Country." Recipients of the award have been Dr. E. O. Lawrence in 1958, John Foster Dulles in 1959, Henry Cabot Lodge in 1960, Dwight D. Eisenhower in 1961, Douglas MacArthur in 1962, John J. McCloy in 1963, Robert A. Lovett in 1964, Dr. James B. Conant in 1965, and Carl Vinson in 1966.

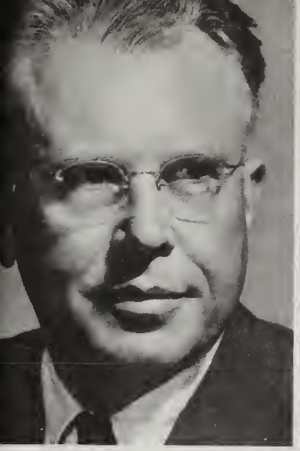
The major programs of the Association include maintenance of biographical files on all graduates; publication of necrologies and class reports in *Assembly;* receipt and disposition of historical items; assistance in establishment and support of West Point Societies; maintenance of an up-to-date list of addresses; correspondence concerning graduates; presentation of awards to cadets; selection of the person to receive the Sylvanus Thayer award; and organization of alumni activities at West Point.

Information is disseminated through two publications published by the West Point Alumni Foundation, Inc., a nonprofit corporation. The annual *Register of Graduates and Former Cadets* includes a summary of the record of each graduate and where he is and what he is doing. The quarterly magazine *Assembly* under the editorial sponsorship of the Association of Graduates gives current information about the Academy and its graduates.

The Association's administrative organization consists of a President and five Vice Presidents, elected annually; a Secretary-Treasurer; and 36 Trustees, 12 of whom are elected annually for terms of 3 years. The Association's office is located in Cullum Memorial Hall.

Cooperating with the Association are the following autonomous West Point Societies:

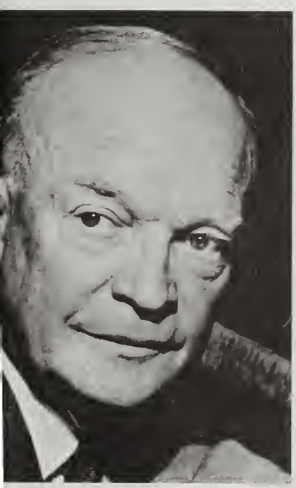
State	*West Point Society of—*
Alabama	Alabama (Birmingham)
	Mobile
Arizona	Phoenix
	Southern Arizona (Tucson)
California	Los Angeles
	Monterey Peninsula (Monterey)
	San Diego
	San Francisco Bay Area



st Orlando Lawrence, 1958

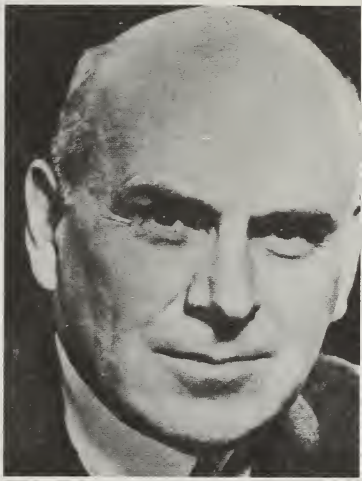
John Foster Dulles, 1959

Henry Cabot Lodge, 1960



ht David Eisenhower, 1961

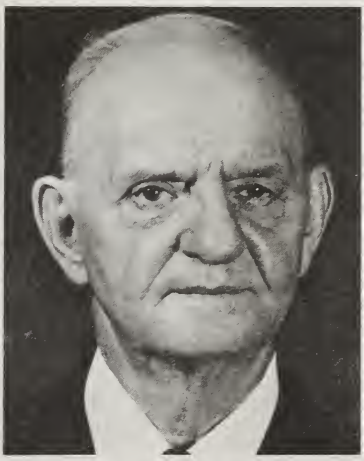
Douglas MacArthur, 1962



John J. McCloy, 1963

ert A. Lovett, 1964

James B. Conant, 1965



Carl Vinson, 1966

Recipients of Thayer Award

Colorado	Denver
	Pikes Peak Region (Colorado Springs)
Connecticut	Connecticut (Hartford)
District of Columbia	District of Columbia
Florida	Canaveral
	Central Florida (Orlando)
	Florida West Coast (Tampa)
	North Florida (Jacksonville)
	South Florida (Miami)
Georgia	Atlanta
	Savannah
	Columbus (Fort Benning)
Hawaii	Hawaii (Honolulu)
Illinois	Central Illinois (Champaign-Urbana)
	Chicago
Indiana	Indianapolis
Kentucky	Louisville
Louisiana	Mid-Gulf (New Orleans)
Maryland	Maryland (Baltimore)
Massachusetts	New England (Boston)
Michigan	Michigan (Detroit)
Minnesota	Minnesota (Minneapolis)
Missouri	Kansas City
	St. Louis
New Mexico	Albuquerque
New York	New York (New York City)
	Rochester
	Western New York (Buffalo)
	Capitol District (Albany)
North Carolina	Western North Carolina (Asheville)
North Dakota	North Dakota (Bismarck)
Ohio	Central Ohio (Columbus)
	Cincinnati
	Cleveland
	Northwestern Ohio (Van Wert)
	Dayton
Oklahoma	Central Oklahoma (Oklahoma City)
	Eastern Oklahoma (Tulsa)
Oregon	Portland
Pennsylvania	Central Pennsylvania (Harrisburg)
	Philadelphia
	Western Pennsylvania (Pittsburgh)
Philippine Islands	Philippines (Manila)
South Carolina	Charleston
Tennessee	Tennessee (Nashville)
Texas	El Paso Area
	Houston
	North Texas (Dallas)
	South Texas (San Antonio)
Washington	Seattle
Wisconsin	Milwaukee

THE WEST POINT ALUMNI FOUNDATION

The West Point Alumni Foundation, Inc., is a nonprofit, tax-exempt educational institution support organization whose objectives are designed to contribute to the welfare and enrichment of the United States Military Academy and the Corps of Cadets. The Foundation was chartered in the State of Maryland in 1945 and maintains an office at West Point. Its operations are directed by a Board of Managers composed of distinguished alumni.

The Foundation is presently engaged in two principal areas of endeavor in furtherance of its purposes. One of these is the financing and distribution of alumni publications in concert with the Association of Graduates USMA. The other is the maintenance and employment of the West Point Superintendent's Fund.

The alumni publications are *Assembly* and the *Register of Graduates and Former Cadets USMA*. *Assembly* is a quarterly magazine containing articles of current interest on developments and events at the Academy, class notes, and memorial articles about deceased graduates. It is edited by the Association of Graduates and contains no advertising. The *Register of Graduates* is an annual publication which lists graduates of the Military Academy by class and order of graduation, and provides a brief resume of their respective careers as well as pertinent data on current addresses or assignments and other matters of interest relating to individual alumni and their association with the Academy. This book is edited by the Foundation and contains a limited amount of advertising. The costs of both publications are met mainly by subscriptions and advertising revenues collected by the Foundation, and by private donations for such purposes to the West Point Superintendent's Fund of the Foundation.

The West Point Superintendent's Fund was established by the Foundation in 1961 for the purpose of receiving and employing private gifts, grants and bequests to provide benefits for the Corps and the Academy that are outside the realm of expected government support. Both restricted and unrestricted gifts are accepted into the Fund. Any conditions attached to the former type must, however, be cleared in advance with the Superintendent of the Military Academy to assure their acceptability for subsequent employment in concert with appropriate regulations and the needs of the institution. The use of unrestricted monies for project and program support is controlled by a Policy Committee of distinguished graduates acting on recommendations for specific expenditures by the Superintendent. No assets of the Fund or the Foundation are utilized for entertainment, propaganda or lobbying purposes. All interest and dividends

that accrue to the Fund are applied against Foundation publication and operating costs along with such gifts as may be made for that express purpose.

Since its inception the Fund has provided a number of worthwhile benefits ranging from minor items of equipment and cadet program support to major facilities and academic activities. The support given this endeavor by the cadets, alumni and friends of West Point alike has assured its continuance as a means of providing those things which cannot be financed through appropriations, but which are deemed important to the desired enrichment of the Academy, its objectives and its future graduates.

All gifts to the Foundation and to its West Point Superintendent's Fund are tax deductible in accordance with the provisions of Section 170 (C) of the Internal Revenue Code.

Additional information of the Foundation and its activities may be obtained by writing the Secretary Treasurer, West Point Alumni Foundation, Inc., West Point, New York 10996.

COLONEL THAYER

SUPERINTENDENTS OF THE MILITARY ACADEMY

1. **JONATHAN WILLIAMS**
   Maj. Corps of Engineers_____15 Apr 1802—20 June 1803
2. **JONATHAN WILLIAMS**
   Lt. Col. Corps of Engineers [1]__19 Apr 1805—31 July 1812
3. **JOSEPH G. SWIFT**
   Col. Corps of Engineers_____31 July 1812—24 Mar 1814
4. **ALDEN PARTRIDGE**
   Capt. Corps of Engineers_____3 Jan 1815—28 July 1817
5. **SYLVANUS THAYER**
   Capt. Corps of Engineers_____28 July 1817—1 July 1833
6. **RENE E. DE RUSSY**
   Maj. Corps of Engineers_____1 July 1833—1 Sept 1838
7. **RICHARD DELAFIELD**
   Maj. Corps of Engineers_____1 Sept 1838—15 Aug 1845
8. **HENRY BREWERTON**
   Capt. Corps of Engineers_____15 Aug 1845—1 Sept 1852
9. **ROBERT E. LEE**
   Capt. Corps of Engineers_____1 Sept 1852—31 Mar 1855
10. **JOHN G. BARNARD**
    Capt. Corps of Engineers_____31 Mar 1855—8 Sept 1856
11. **RICHARD DELAFIELD**
    Maj. Corps of Engineers_____8 Sept 1856—23 Jan 1861
12. **PIERRE G. T. BEAUREGARD**
    Capt. Corps of Engineers [2]____23 Jan 1861—28 Jan 1861
13. **RICHARD DELAFIELD**
    Maj. Corps of Engineers [2]____28 Jan 1861—1 Mar 1861
14. **ALEXANDER H. BOWMAN**
    Maj. Corps of Engineers_____1 Mar 1861—8 July 1864
15. **ZEALOUS B. TOWER**
    Maj. Corps of Engineers_____8 July 1864—8 Sept 1864
16. **GEORGE W. CULLUM**
    Lt. Col. Corps of Engineers___8 Sept 1864—28 Aug 1866
17. **THOMAS G. PITCHER**
    Col. Infantry [3] _____28 Aug 1866—1 Sept 1871
18. **THOMAS H. RUGER**
    Col. Infantry_____1 Sept 1871—1 Sept 1876
19. **JOHN M. SCHOFIELD**
    Maj. Gen. U.S. Army_____1 Sept 1876—21 Jan 1881

[1] Major Williams resigned 20 June 1803, on a point of command, and pending its settlement on 19 April 1805, when he again returned to service as Chief Engineer, no permanent Superintendent was appointed, the command devolving upon the senior officer of the Corps of Engineers present for duty.

[2] Captain Beauregard, by order of John B. Floyd, Secretary of War, relieved Major Delafield from the Superintendency, but was himself displaced five days later by direction of the succeeding Secretary of War Joseph Holt, the command again devolving upon Major Delafield.

[3] The Superintendents were selected from the Corps of Engineers until passage of the law of 13 July 1866, which opened the Superintendency to the entire Army. By the Act of 12 June 1856, the local rank of Colonel was conferred upon the Superintendent.

20. **OLIVER O. HOWARD**
Brig. Gen. U.S. Army_____21 Jan 1881—1 Sept 1882
21. **WESLEY MERRITT**
Col. Cavalry_____1 Sept 1882—1 July 1887
22. **JOHN G. PARKE**
Col. Corps of Engineers_____28 Aug 1887—24 June 1889
23. **JOHN M. WILSON**
Lt. Col. Corps of Engineers___26 Aug 1889—31 Mar 1893
24. **OSWALD H. ERNST**
Maj. Corps of Engineers_____31 Mar 1893—21 Aug 1898
25. **ALBERT L. MILLS**
1st Lt. Cavalry_____22 Aug 1898—31 Aug 1906
26. **HUGH L. SCOTT**
Maj. Cavalry_____31 Aug 1906—31 Aug 1910
27. **THOMAS H. BARRY**
Maj. Gen. U.S. Army_____31 Aug 1910—31 Aug 1912
28. **CLARENCE P. TOWNSLEY**
Col. Coast Artillery Corps____31 Aug 1912—30 June 1916
29. **JOHN BIDDLE**
Col. Corps of Engineers_____1 July 1916—31 May 1917
30. **SAMUEL E. TILLMAN**
Col. U.S. Army_____13 June 1917—11 June 1919
31. **DOUGLAS MACARTHUR**
Brig. Gen. U.S. Army_____11 June 1919—30 June 1922
32. **FRED W. SLADEN**
Brig. Gen. U.S. Army_____1 July 1922—23 Mar 1926
33. **MERCH B. STEWART**
Brig. Gen. U.S. Army_____24 Mar 1926—5 Oct 1927
34. **EDWIN B. WINANS**
Maj. Gen. U.S. Army_____23 Oct 1927—25 Feb 1928
35. **WILLIAM R. SMITH**
Maj. Gen. U.S. Army_____26 Feb 1928—30 Apr 1932
36. **WILLIAM D. CONNOR**
Maj. Gen. U.S. Army_____1 May 1932—17 Jan 1938
37. **JAY L. BENEDICT**
Brig. Gen. U.S. Army_____5 Feb 1938—17 Nov 1940
38. **ROBERT L. EICHELBERGER**
Brig. Gen. U.S. Army_____18 Nov 1940—12 Jan 1942
39. **FRANCIS B. WILBY**
Maj. Gen. U.S. Army_____13 Jan 1942—4 Sept 1945
40. **MAXWELL D. TAYLOR**
Maj. Gen. U.S. Army_____5 Sept 1945—28 Jan 1949
41. **BRYANT E. MOORE**
Maj. Gen. U.S. Army_____28 Jan 1949—17 Jan 1951
42. **FREDERICK A. IRVING**
Maj. Gen. U.S. Army_____1 Feb 1951—31 Aug 1954

43. **BLACKSHEAR M. BRYAN**
Lt. Gen. U.S. Army_____3 Sept 1954—14 July 1956

44. **GARRISON H. DAVIDSON**
Lt. Gen. U.S. Army_____15 July 1956—30 June 1960

45. **WILLIAM C. WESTMORELAND**
Maj. Gen. U.S. Army_____1 July 1960—28 June 1963

46. **JAMES B. LAMPERT**
Maj. Gen. U.S. Army_____29 June 1963—6 Jan 1966

47. **DONALD V. BENNETT**
Maj. Gen. U.S. Army_____10 Jan 1966—

OFFICERS OF INSTRUCTION, RESEARCH AND ADMINISTRATION

CPT. JAMES L. ABRAHAMSON, ARMOR
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., University of Geneva

LTC. ROBERT L. ACKERSON, CE
Assistant Professor of History of the Military Art
B.S., U.S. Military Academy
M.S.C.E., Iowa State University

MR. JAMES F. ADAMS
Lacrosse Coach
B.A., Johns Hopkins University

MAJ. RICHARD E. ADAMS, ARTY
Tactical Officer, USCC
B.S., U.S. Military Academy

LTC. DAVID C. AHEARN, ARTY
Assistant Professor of English
B.S., U.S. Military Academy
M.A., Cornell University

MR. LEROY A. ALITZ
Instructor in Physical Education and Wrestling Coach
B.S., State College of Iowa
M.A., University of Iowa

CPT. LEE ALLEN, ARMOR
Instructor in Geography
B.S., U.S. Military Academy
M.S., Illinois University

MAJ. ROBERT H. ALLISON, ARTY
Assistant Professor of Mathematics
A.B., University of Massachusetts
M.S., Mississippi State University

MAJ. JAMES L. ANDERSON, INF
Instructor in Physical Education
B.S., U.S. Military Academy
M.S., Indiana University

LTC. NICK J. ANDRE, CE
Instructor in Civil Engineering
B.S., Virginia Polytechnic Institute
B.S.C.E., University of Missouri

LTC. ROBERT B. ANDREEN, SIG C
Associate Professor of Electricity
B.S., U.S. Military Academy
M.S.E.E., Ph. D., Georgia Institute of Technology

MAJ. JACK A. APPERSON, ORD C
Instructor in Ordnance Engineering
B.S., U.S. Military Academy
M.S., Purdue University

DR. LLOYD O. APPLETON
Associate Director of Physical Education
B.A., Cornell University
M.A., Columbia University
Ph. D., New York University

MAJ. BILLY A. ARTHUR, INF
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MR. RAY S. BAGGETT
Trainer in Physical Education
B.S., Troy State College
M.S., Indiana University

MAJ. GEORGE A. BAILEY, AGC
Assistant Professor of English
B.A., University of Connecticut
M.A., Ohio State University

CPT. RONALD C. BALDWIN, ARTY
Instructor in Chemistry
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. WALTER S. BARGE, ARTY
Assistant Professor of Social Sciencies
B.S., Wake Forest College
M.A., Columbia University

CPT. JAMES F. BAUR, CE
Assistant Professor of Physics
B.S., M.S., University of Florida

CPT. DWIGHT E. BEACH, JR., ARTY
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology

CPT. BENJAMIN B. BEASLEY, ARMOR
Instructor in English
B.S., U.S. Military Academy
M.A., Universtiy of Pennsylvania

MAJ. CHARLES A. BEITZ, TC
Instructor in Social Sciences
B.A., LaSalle College
M.B.A., Ohio State University

MAJ. RAYMOND E. BELL, JR, ARMOR
Assistant Professor, German
B.S., U.S. Military Academy
M.A., Middlebury College

CPT. RONALD A. BELTZ, CE
Assistant Professor, Mathematics
B.S., U.S. Military Academy
M.A., M.S.E., Princeton University

MAJ. GEN. DONALD V. BENNETT, USA
Superintendent
B.S., U.S. Military Academy
Army War College

MAJ. LESTER E. BENNETT, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MAJ. RICHARD C. BENNETT, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. THOMAS R. BENNETT, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. JOHN R. BERTI, SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E. (E.E.), University of Michigan

CPT. ROBERT N. BIERLY, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S.E., Princeton University

COL. JOHN D. BILLINGSLEY, PROFESSOR
Head of Department of Ordnance
B.S., U.S. Military Academy
B.S. in M.E., Massachusetts Institute of Technology
M.B.A., Harvard University
National War College

MAJ. JOSEPH A. BISHOP, CE
Instructor in Physics
B.S., U.S. Military Academy
M.S., University of California (Davis)

COL. GEORGE W. BIXBY, CE
Associate Professor Mathematics
B.S., U.S. Military Academy
M.S., University of California
M.S., Rensselaer Polytechnic Institute
Army War College

MAJ. DARYL K. BLACKHAM, SIGC
Assistant Professor of Electricity
B.S.E.E., Utah State Agricultural College
M.S.E.E., Standford University

LTC. ARTHUR H. BLAIR, CE
Associate Professor, Director, Research and Analysis Div., office of the Dean
B.S., U.S. Military Academy
M.S., California Institute of Technology
M.A., University of Pennsylvania

CPT. JACK E. BOHMAN, ARTY
Instructor in French
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. ARCADE G. BOIVIN, CE
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S.E., Purdue University

MAJ. PAUL M. BONS, ARTY
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Wayne State University

MAJ. JACK O. BRADSHAW, ARTY
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
Diploma, University of Heidelberg

CPT. EDWARD J. BRADY, SIG C
Instructor in Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

CPT. RONALD V. BRASS, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., University of Illinois

MR. CLAUDE F. BRIDGES
Chief, Operations Division, Office of Research
B.S., M.A., University of Florida

CPT. H. LEE BRIGGS, JR., ARTY
Instructor in Physics
B.S., U.S. Military Academy
M.S., Purdue University

COL. CHARLES R. BROSHOUS, PROFESSOR
Head of the Department of Earth, Space, and Graphic Sciences
B.S., U.S. Military Academy
M.S., University of California

CPT. REGINALD J. BROWN, INF
Instructor in Social Sciences
B.S., U.S. Military Academy
M.P.A., Harvard University

MAJ. WILLIAM I. BROWNFIELD, CE
Assistant Professor of Electricity
B.S., The Citadel
M.S.E.E., Purdue University

CPT. WILLIAM C. BUELL, ARTY
Assistant Professor, Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. AL BUIE, USAF
Air Force Liaison Officer, USMA
B.S., U.S. Military Academy

MAJ. JERRY J. BURCHAM, INF
Instructor in Physical Education
B.S., U.S. Military Academy
M.S., Indiana University

CPT. WILLARD M. BURLESON, ARMOR
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. JAMES C. BURRIS, INF
Instructor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.A., Louisiana State University

MAJ. HARLAN B. BYNELL, ARTY
Assistant Professor of English
B.S., U.S. Military Academy
M.A., Columbia University

MR. THOMAS B. CAHILL
Head Football Coach
B.S., Niagara University

CPT. FRANCIS J. CALVERASE, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. JACK F. CALVERT, CML C
Assistant Professor of Chemistry
B.S., New Mexico Military Institute
M.S., Oklahoma State University

LTC. DAVID H. CAMERON, CE
Associate Professor of Mathematics
B.S., U.S. Military Academy
M.S.E., Princeton University
M.S., Rensselaer Polytechnic Institute

CPT. J. FRANK CAMPBELL, INF
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., North Carolina State University

COL. JERRY G. CAPKA, CE
Director of Athletics
B.S., U.S. Military Academy
M.S., Harvard University
M.A., George Washington University

LTC. JACK L. CAPPS, PROFESSOR
Deputy Head, Dept. of English
B.S., U.S. Military Academy
M.A., Ph. D., University of Pennsylvania

LTC. ROBERT E. CARIGNAN, FC
Associate Professor of Social Sciences
B.S., University of Maryland
M.B.A., Harvard University

CPT. CLAYTON H. CARMEAN, JR., CE
Assistant Professor of Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. THOMAS E. CARPENTER, III, ARMOR
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Fletcher School of Law and Diplomacy (Tufts University)

CPT. BENNY M. CARR, CE
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Purdue University

LT. ORWIN L. CARTER, CML C
Instructor in Chemistry
B.S., University of Iowa
M.S., Ph. D., University of Illinois

CPT. MARTIN W. CARY, JR., ARTY
Assistant Information Officer
B.S., U.S. Military Academy

CPT. JERRY W. CAVENDER, ORD C
Instructor in Management Engineering
B.S., Middle Tennessee State College
M.A., University of Alabama

CPT. WILLIAM F. CHAMBERLAIN, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S.E., Princeton University

MAJ. GEORGE W. CHANCELLOR, ARTY
Associate Professor of Chemistry
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. ROBERT T. CHENOWETH, TC
Assistant Professor of Social Sciences
B.S., Purdue University
M.B.A., Harvard University

MAJ. WENDELL A. CHILDS, ORD C
Assistant Professor of Physics
B.S., Alabama Polytechnic Institute
M.S., Stevens Institute of Technology

MAJ. MAX A. CLAPP, INF
Assistant S4, Office of Physical Education
B.S., Purdue University

CPT. CLAUDE L. CLARK, ARMOR
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., Stanford University

MAJ. WILLIAM P. CLARY, ARMOR
Instructor in German
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. DONALD E. CLUXTON, JR., INF
Instructor in History of the Military Art
A. B., University of Wyoming
M.A., Duke University

LTC. THOMAS W. COLLIER, INF
Instructor in History of the Military Art
B.S., U.S. Military Academy
M.A., Duke University

MAJ. MICHAEL J. COLLINS, USAF
Assistant Professor of Social Sciences
B.A., M.A., Butler University
M.A., Rutgers University

MAJ. JOHN M. COLLISON, ARTY
Assistant Operations Officer, USCC
B.A., Texas A&M University

MAJ. MICHAEL J. CONRAD, INF
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. ROBERT E. CONROY, CE
Assistant Plans Officer, Office of Military Instruction
B.S.C.E., University of Massachusetts
M.S.C.E., Stanford University

MAJ. JACK B. COOPER, ARMOR
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Northeastern University

MAJ. WILLIAM T. COOPER, CE
Instructor in Physics
B.S., U.S. Military Academy
M.S., North Carolina State College

MAJ. JOHN J. COOK, JR., ARTY
Tactical Officer, USCC
B.A., Pennsylvania Military College

CPT. JOHN F. CORBY, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. JOSEPH H. CORETH, ARMOR
Instructor in English
B.S., U.S. Military Academy
M.A., Cornell University

MAJ. JAMES J. CORTEZ, ARMOR
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy

CPT. HOLLAND B. COULTER, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy

CPT. BRUCE M. COWAN, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of Illinois

LTC. THEODORE H. M. CRAMPTON, ARMOR
Assistant Professor of Mathematics
A.B., Hamilton College
M.A., Ph. D., Indiana University

MAJ. WALTER CREMER, GERMAN ARMY
Instructor in German
Abitur, Heinrich v. Kleist-Oberrealschule
Universität Köln

MAJ. WILLIAM F. CREWS, ORD C
Instructor in Ordnance Engineering
B.S., U.S. Military Academy
M.S., Purdue University

MR. CARLETON CROWELL
Cross Country and Track & Field Coach
Ph. B., University of Wisconsin

LTC. EDWARD F. CROWLEY, INF
Executive Officer, Department of Foreign Languages; Assistant Professor
B.S., U.S. Military Academy
University of Madrid, Spain

CPT. EDWARD M. CROWLEY, INF
Admissions Officer
B.S., U.S. Military Academy

MR. WILLIAM C. B. CULLEN
Associate Instructor in Physical Education for Tennis and Squash, and Tennis and Squash Coach
B.A., Wake Forest College

CW3 JAMES B. CULLUM
Laboratory Officer, Department of Ordnance

COL. ELLIOTT C. CUTLER, JR., PROFESSOR
Head of Department of Electricity
B.S., U.S. Military Academy
M.S.E.E., Ph. D., Georgia Institute of Technology

MRS. DARLA DAGGIT
Cataloger, USMA Library
B.A., University of Maryland
M.S., Columbia University

MAJ. EDWARD A. DAGGIT, INF
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

LTC. JOHN D. DAIGH, CE
Associate Professor of Mechanics
B.S., U.S. Military Academy
M.S., Ph. D., University of Illinois

CPT. HAROLD W. DARDEN, JR., INF
Tactical Officer, USCC
B.S., North Georgia College

MR. GALE DAUGHERTY
Assistant Basketball Coach
B.A., M.A., Idaho State University

CPT. DONALD R. DAVIS, ARTY
Instructor, Officer of Military Instruction
B.S., U.S. Military Academy

MAJ. JAMES M. DAVIS, JR., INF
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Georgia Institute of Technology

MR. JOHN A. DAVIS, JR.
Organist and Choirmaster
B.S., Westminster Choir College
M.A., Boston University

MAJ. PETER M. DAWKINS, INF
Assistant Professor of Social Science
B.S., U.S. Military Academy
B.A., M.A., (Oxon)

MAJ. HERMAN E. DAY, ORD C
Assistant Professor of Engineering Materials
B.S., U.S. Military Academy
M.S., Michigan State University

COL. ROBERT S. DAY, USA
Director of Admissions and Registrar
B.S., University of Illinois
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology

MAJ. WILLIAM S. deCAMP, ARMOR
Assistant Professor of Social Sciences
B.A., University of California
M.A., Tulane University

MAJ. EDGAR E. DeMARIS, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Iowa State University

MAJ. ROBERT DEGEN, ARMOR
Instructor in Physical Education
B.S., U.S. Military Academy
M.S., University of Wisconsin

CPT. STANLEY J. DELIKAT, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. GERALD Z. DEMERS, ORD C
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Alabama

LTC. EDGAR DENTON, III, AGC
Associate Professor of Social Sciences
B.S., M.A., Ph. D., Syracuse University

COL. JOHN S. B. DICK, PROFESSOR
Deputy Head of Department of Mathematics
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology
M.S., Rensselaer Polytechnic Institute
Armed Forces Staff College
NATO Defense College

LTC. ROBERT C. DIEHL, ARMOR
Deputy Director, Office of Military Instruction
B.S., University of Maryland

CPT. PHILIP G. DOMBROWSKI, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy

MAJ. CHARLES R. DOMECK, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
B.S., M.S., University of Michigan

LTC. JAMES C. DONOVAN, CE
Executive Officer and S3, 1st Regiment
B.S., U.S. Military Academy
M.S., Iowa State College

CPT. ARTHUR J. DOWNEY, JR., SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Stanford University

MAJ. EDWARD J. DOWNING, JR., ARTY
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. GEORGE N. DREYBUS, JR., ARTY
Tactical Officer, USCC
B.A., The Citadel

MAJ. PAUL C. DRISCOLL, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., M.S.N.E., University of Illinois

MAJ. WILLIAM F. DUNKELBERGER, ARTY
Assistant Professor, Russian
B.A., Virginia Military Institute
M.A., Columbia University

MAJ. JAMES W. DUNN, ARTY
Instructor in History of the Military Art
B.S., U.S. Military Academy

LTC. DONALD T. DUNNE, ARMOR
Assistant Director of Instruction and Associate Professor, Department of Foreign Languages
B.A., University of Virginia
M.A., Middlebury College

MISS MARTHA M. EARL
Reference Librarian
B.A., University of California
B.L.S., School of Librarianship, University of California

LTC. CLYDE T. EARNEST, JR., CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., Texas A&M

LTC. KENNETH R. EBNER, INF
Assistant Professor of Geography
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. WILLIAM ECHEVARRIA, ORD C
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. JAMES S. V. EDGAR, INF
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., Princeton University

CPT. FRANCIS C. EGAN, INF
Admissions Officer
B.S., U.S. Military Academy

MAJ. MICHAEL A. EGGLESTON, SIG C
Tactical Officer, USCC
B.S., U.S. Military Academy

LTC. RAYMOND J. EINEIGL, CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S., Northeastern University

LTC. WARREN H. EISENHART, ARTY
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. PHILLIPS G. P. ELIOT, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. SUMNER R. ELY, ORD C
Instructor in Ordnance Engineering
B.S., University of California
M.S., Stevens Institute of Technology

CPT. CHARLES A. ENDRESS, AIS
Instructor in Social Sciences
B.A., Vanderbilt University
M.A., Ph. D., Tulane University

CPT. CLARENCE E. ENDY, JR., SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Purdue University

LTC. ARTHUR L. ERICKSON, INF
Assistant Professor of Astronomy
B.S., U.S. Military Academy
M.S., Johns Hopkins University

MAJ. DONALD J. ERICKSON, SIG C
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
B.A., Harvard University

CPT. LEONARD F. ERMOLD, JR, CE
Assistant Professor of Mechanics
B.S., Drexel Institute of Technology
M.S., Ph. D., Virginia Polytechnic Institute

CPT. RONALD L. ERNHARTH, ARTY
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., Columbia University

CPT. KENNETH J. FEDOR, ARTY
Instructor in Social Sciences
B.S., Ripon College
Ph. D., University of Tennessee

MISS IRENE FEITH
Reference Librarian (Documents)
B.A., Ladycliff College

CPT. JOSEPH G. FELBER, JR., ARMOR
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

CPT. JAMES C. FERGUSON, JR., ARTY
Instructor in Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MR. STEPHEN FISCHER
Systems Analyst & Programmer Academic Computer Center
B.S. Drexel Institute of Technology
M.S., University of Pennsylvania

MAJ. JAMES E. FISCUS, INF
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S.E., Purdue University

CPT. FRANCIS J. FISHBURNE, ARTY
Admissions Officer
B.S., U.S. Military Academy

LTC. EMIL FISHER, JR., ARMOR
Assistant Information Officer
B.A., Virginia Military Institute
M.A., University of Wisconsin

CPT. JOHN W. FISHER, ARMOR
Assistant Professor, German
B.A., Stanford University
M.A., Columbia University

MAJ. LUIS J. FLANAGAN, (USA Ret)
Assistant Operations Officer, USCC
B.S., U.S. Military Academy

LTC. JOHN D. FOLDBERG, INF
Chief, Career Branch, Office of Military Instruction
B.S., U.S. Military Academy

LT PRESTON W. FORBES, ARTY
Instructor in Physics
B.S., University of Richmond
M.S., University of Toledo
Ph.D., Virginia Polytechnic Institute

REVEREND JAMES D. FORD
Chaplain, USMA
B.A., Gustavus Adolphus College
B.D., Augustana Theological Seminary

CPT. ALBERT E. FOWERBAUGH, ARMOR
Assistant Professor in Social Sciences
B.S., LL. B. University of Michigan

CPT. DARREL V. FOWLER, CML C
Instructor in Physics
B.S., Massachusetts Institute of Technology
M.S., University of Michigan

LTC. JOHN E. FOX, INF
Associate Professor of Environment
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. JOSEPH P. FRANKLIN, CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., M.S.N.E., Massachusetts Institute of Technology

CPT. FREDERICK M. FRANKS, JR., ARMOR
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

LTC. DeBOW FREED, INF
Associate Professor of Physics
B.S., U.S. Military Academy
Ph. D., University of New Mexico

LTC. EDWARD P. FREEDMAN, ARMOR
Assistant Professor, German
B.S., U.S. Military Academy
M.A., Middlebury College

CPT. ROBERT O. FREEDMAN, INF
Instructor in Social Sciences
B.A., M.A., University of Pennsylvania

LT. HENRY A. FRIEDMAN
Instructor in Physical Education
B.A., M.A., University of California (Santa Barbara)

LTC. GEORGE W. GALLANT, JR., AIS
Instructor in Russian
A. B., Boston College

MR. FREDERICK C. H. GARCIA
Assistant Professor, Portuguese
B.A. & Licenciado, Federal District University of Rio de Janeiro, Brazil
Diploma (Teaching Certificate) University of Coimbra, Portugal

CPT. WILLIAM J. GARCIA, JR., CE
Assistant Professor of Physics
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. THOMAS P. GARIGAN, INF
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. DONALD F. GARVAIS, ORD C
Instructor in Mathematics
B.S., University of Connecticut
M.B.A., Babson Institute

LTC. JOHN B. GARVER, JR., INF
Assistant Professor of Anglo-American Geography
B.S., U.S. Military Academy
M.A., Syracuse University

MAJ. CHARLES J. GARVEY, INF
Instructor of Physical Education
B.S., U.S. Military Academy
M.S., Indiana University

CPT. RICHARD H. GATES, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. JOHN L. GEISINGER, SIG C
Instructor in Electricity
B.S.E.E., M.S.E.E., University of Illinois

MAJ. LESLIE G. GIBBINGS, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MAJ. CHARLES A. GLENN, ARTY
Tactical Officer, USCC
B.S., U.S. Military Academy

MAJ. WILLIAM L. GOLDEN, INF
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.A., University of Chicago

CPT. WALTER R. GOOD, SIG C
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. VICTOR J. GONGOLA, ORD C
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Stevens Institute of Technology

MAJ. THOMAS P. GORMAN, AIS
Instructor in Social Sciences
B.A., Fordham University
M.A., The American University

LTC. WARREN R. GOSSETT, ARMOR
Deputy Director, Office of Physical Education
B.S., U.S. Military Academy
M.A., University of Oklahoma

MAJ. HARL G. GRAHAM, ARTY
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Arizona State University

MAJ. TODD P. GRAHAM, INF
Assistant Professor of Geography of USSR
B.S., U.S. Military Academy
M.A., Syracuse University

CPT. VINCENT G. GRANDE, JR., SIG C
Instructor in Mathematics
B.S., U.S. Military Academy

MAJ. GARY P. GRAVES, ARMOR
Tactical Officer, USCC
B.S., U.S. Military Academy

COL. THOMAS E. GRIESS, PROFESSOR
Deputy Head of Department of Military Art and Engineering
B.S., U.S. Military Academy
M.S., University of Illinois
M.A., Duke University

CPT. FLETCHER H. GRIFFIS, JR., CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., Oklahoma State University

CPT. BRUCE J. GRONICH, SIG C
Instructor in Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. EDWARD F. GRUBBS, JR., INF
Assistant Professor of the Portuguese Language
B.S., U.S. Military Academy

MAJ. WILLIAM E. HAAS, INF
Assistant Professor of English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

CPT. JOHN H. HAFNER, AGC
Instructor in English
B.S., Springhill College
M.A., Marquette University

MAJ. F. WHITNEY HALL, JR., ARMOR
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Georgetown University

MAJ. LEROY D. HAMMOND, CE
Instructor in Engineering Fundamentals
B.S., Virginia Military Institute
M.S., Stanford University

CPT. JAMES R. HANNIGAN, SIG C
Programmer, Academic Computer Center
B.S., U.S. Military Academy
M.S., California Institute of Technology

MISS ANN K. HARLOW
Chief, Reader's Services Division, USMA Library
A.B., Duke University
B.S. in L.S., University of North Carolina

CPT. DONALD G. HARMON, ARTY
Instructor in Physical Education
B.S., Iowa State University

CPT. JOHN R. HARRELL, ARTY
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Southern California

MAJ. ARTHUR M. HARRIS, INF
Instructor, Office of Military Instruction
B.S., U.S. Military Academy

CPT. WILEY V. HARRIS, Jr., SIG C
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Arizona

MAJ. FRANKLIN A. HART, INF
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Stanford University

MAJ. ROBERT T. HATCHER, ARMOR
Instructor, Office of Military Instruction
B.S., Massachusetts Institute of Technology

MAJ. WILLIAM L. HAUSER, ARTY
Assistant Professor of Social Sciences
B.A., U.S. Military Academy
M.A., University of Southern California

MAJ. LeROY R. HAYDEN, JR., CE
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Purdue University

COL. SAMUEL H. HAYS, INF
Head of the Department of Military Psychology and Leadership
B.S., U.S. Military Academy
M.A., Columbia University
Army War College

COL. ELVIN R. HEIBERG, PROFESSOR
Head of Department of Mechanics
B.S., U.S. Military Academy
C.E., Cornell University
Diploma in Hydraulic Engineering, Delft Technological University, Netherlands
Armed Forces Staff College

LTC. ELVIN R. HEIBERG, III, CE
Associate Professor of Social Sciences
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology
M.A., George Washington University

CPT. WALTER C. HENDRIX, AIS
Instructor in Social Sciences
B.A., Mercer University
M.A., Ph.D., Yale University

LTC. MORRIS J. HERBERT, ARTY
Associate Professor of Ordnance
B.S., U.S. Military Academy
M.S., University of Southern California

CPT. DEAN A. HERMAN, ARTY
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Stanford University

LTC. ROY J. HERTE, JR., INF
S4, Office of Physical Education
B.S., U.S. Military Academy

LTC. PENNELL J. HICKEY, INF
Associate Professor of Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

CPT. SANFORD W. HICKMAN, ARTY
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of Arizona

LT. JAMES D. HIGGINS, JR., USN
Tactical Officer, USCC
B.S., U.S. Naval Academy

MAJ. LOUIS V. HIGHTOWER III, INF
Instructor in Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. JAMES L. E. HILL, CML C
Instructor in Chemistry
B.S., West Virginia State College
M.S., Pennsylvania State University

CPT. JEROME B. HILMES, CE
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., Ph.D., Iowa State University

MAJ. RICHARD W. HOBBS, INF
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
Ph.D., University of Lyons

CPT. ROBERT L. HOBSON, ARTY
Assistant Professor of Physics
B.S., Virginia Military Institute
Ph.D., Rensselaer Polytechnic Institute

MAJ. JOHN R. HOCKER, INF
Instructor in Mathematics
B.S., U.S. Military Academy
M.A., University of Freiburg

LTC. WILFORD J. HOFF, JR., CML C
Associate Professor and Deputy Head, of the Department of Chemistry
B.S., The Citadel
M.A., Ph. D., Princeton University

LTC. JOHN F. HOOK, AGC
Assistant Professor, Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

COL. JOHN S. HOWLAND, ARMOR
Director of Research
B.S., U.S. Military Academy
M.A., Ph.D., Vanderbilt University
British Staff College
National War College

MAJ. HARRY J. HUBBARD, III, ARTY
Assistant Professor of Astronomy
B.S., U.S. Military Academy
M.S., University of Southern California

CPT. THOMAS P. HUEMAN, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology

MAJ. DAVID A. HUFNAGEL, ARTY
Assistant Professor of Space Science
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

COL. ALGIN L. HUGHES, ARTY
Commanding Officer, 2d Regiment, USCC
B.S., U.S. Military Academy
Armed Forces Staff College
Army War College

MAJ. ROBERT L. HULL, INF
S1/S4, 3d Regiment, USCC
B.S., U.S. Military Academy

MAJ. LARRY H. HUNT, ARTY
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. C. POWELL HUTTON, ARMOR
Instructor in Social Sciences
B.S., U.S. Military Academy
B.A., M.A., (Oxon)

MAJ. DALE E. HRUBY, ARMOR
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Columbia University

CPT. MICHAEL D. ISACCO, INF
Instructor in Physical Education
B.S., U.S. Military Academy

MAJ. ORLÉANS A. JAMBON, INF
Assistant Professor, French
B.S., Louisiana State University
M.A., Middlebury College

BRIG. GEN. JOHN R. JANNARONE, USA
Dean of the Academic Board
B.S., U.S. Military Academy
M.S., California Institute of Technology
C.E., Columbia University
Army War College

MAJ. JAMES R. JENKINS, SIG C
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Arizona

CPT. GERALD R. JILBERT, ARTY
Instructor in Chemistry
B.S., U.S. Military Academy
M.S., University of Virginia

MAJ. WILLIAM R. JOHANSEN, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of California

MAJ. ARTHUR D. JOHNSON, ARTY
Tactical Officer, USCC
B.S., U.S. Military Academy
M.A., University of Illinois

MAJ. BRUCE C. JOHNSON, ARTY
Academic Counselor, Office of the Dean
B.S., U.S. Military Academy
M.S., University of Michigan

CPT. CHARLES E. JOHNSON, ARTY
Admissions Officer
B.S., U.S. Military Academy

MAJ. HUGH P. JOHNSON, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., Ohio State University

CPT. JOHN P. JOHNSON, CML C
Instructor in Physics
B.S., U.S. Military Academy
M.S., U.S. Naval Postgraduate School

LTC. MALCOLM D. JOHNSON, CE
Associate Professor of Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., Texas A&M

MR. MAURICE A. JOHNSON
Instructor in Physical Education
B.S., Minot State College
M.E.D., Springfield College

CPT. ROBERT E. JOHNSTON, CE
Instructor in Social Sciences
B.A., B.S., Rice University
B.A., M.A., (Oxon)

MAJ. JAMES H. JONES, ARMOR
Assistant Professor Latin American Geography
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. PETER G. JONES, ARTY
Assistant Professor of English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. ROBERT W. JONES, JAGC
Assistant Professor of Law
B.B.A., LL.B., St. Mary's University

COL. AMOS A. JORDAN, PROFESSOR
Deputy Head of Department of Social Sciences
B.S., U.S. Military Academy
B.A., M.A., (Oxon)
Ph.D., Columbia University

MAJ. HOWELL H. JORDAN, INF
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

CPT. FRANCIS W. JOYNT, JAGC
Instructor in Law
B.A., Niagara University
LL.B., St. John's University

LTC. MICHAEL E. KALLMAN, CE
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Iowa State University

CPT. EDWARD V. KARL, ORD C
Instructor in Mathematics
B.S., St. Bonaventure University
M.S., University of Delaware

COL. WARREN H. KARSTEDT, TC
Associate Professor of Mathematics
B.A. Ripon College
M.S., Purdue University
Armed Forces Staff College
Industrial College of the Armed Forces

MAJ. WALTER W. KASTENMAYER, JR., CML C
Academic Counselor, Office of the Dean
B.S., St. Bernadine of Siena College
M.S., University of Virginia

CPT. KENNETH I. KAWANO, CML C
Instructor in Chemistry
B.S., Massachusetts Institute of Technology
Ph.D., University of Wisconsin

MAJ. PATRICK J. KELLY, CE
Instructor in Physics
B.S., Marquette University
M.S., U.S. Naval Post Graduate School

LTC. CHARLES R. KEMBLE, ARMOR
Associate Professor of English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

CPT. PETER J. KENNY, JAGC
Assistant Professor of Law
B.S., Fordham University
LL. B., Cornell University

MAJ. RICHARD D. KENYON, TC
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., Princeton University

MR. WILLIAM G. KERR
Assistant Librarian
B.A. Middlebury College
B.L.S., McGill University

CPT. HUGH D. KEVIN, USAF
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., USAF Institute of Technology

LTC. JAMES R. KINTZ, AIS
Deputy Director of Research
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. RICHARD D. KITTELSON, INF
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

CPT. GEORGE R. KLEB, CE
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

LTC. JEFFREY D. KNIGHT, INF
Assistant Professor of the German Language
B.S., U.S. Military Academy
M.A., Middlebury College

MR. ROBERT M. KNIGHT
Basketball Coach
B.A., Ohio State University

COL. FRANK J. KOBES, JR., PROFESSOR
Director of Physical Education
B.S., U.S. Military Academy
B.A., Doane College
M.A., New York University

CPT. DARRYLE L. KOUNS, CE
Instructor in Ordnance Engineering
B.S., U.S. Military Academy
M.S., Purdue University

CPT. NICHOLAS S. H. KRAWCIW, ARMOR
Tactical Officer, USCC
B.S., U.S. Military Academy

MR. JOHN B. KRESS
Associate Director, Office of Physical Education
B.S., M.A., Columbia University

MR. HERBERT J. KROETEN
Associate Director, Office of Physical Education
B.S., M.Ed., University of Minnesota

CPT. NORMAN J. KUKLINSKI, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. FREDERICK W. KULIK, ARTY
Instructor in Physics
B.S., U.S. Military Academy
M.S., Purdue University

CPT. EUGENE F. LABORNE, JR., ORD C
Instructor in Ordnance Engineering
B.S., U.S. Military Academy
M.S., New Mexico State University

CPT. OLLIE L. LANGFORD, ARTY
Instructor in Physical Education
B.S., U.S. Military Academy

CPT. LESLIE G. LANGSETH, CE
Instructor in Physics
B.S., U.S. Military Academy
M.S., University of California

CPT. PETER F. LAGASSE, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of California

MAJ. KENNETH E. LAGER, ARTY
Assistant Professor, Ordnance Engineering
B.S., U.S. Military Academy
M.S., University of Arizona

MAJ. ROBERT A. LEACH, SIG C
Instructor, Academic Computer Center
B.S., Texas Technological College
M.S., University of Arizona

MR. PINGKUN LEE
Cataloger, USMA Library
LL. B., University of Peiping, China

CPT. ROBERT L. LEECH, SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Purdue University

MAJ. WARD M. LeHARDY, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MR. WILLIAM F. LEWIS
Instructor in Physical Education
B.S., Springfield College
M.A., New York University

MAJ. ANTÔNIO JOSÉ de LIMA-CÂMARA
Brazilian Army
Instructor in Portuguese
B.S., Academia Militar das Agulhas Negras

MR. GEORGE W. LINCK
Assistant Director, Office of Physical Education
B.S., Springfield College
M.A., Columbia University

COL. GEORGE A. LINCOLN, PROFESSOR
Head of Department of Social Sciences
B.A., U.S. Military Academy
B.A., M.A., (Oxon)

MAJ. RICHARD E. LITTLEFIELD, INF
Assistant Professor of World Geography
B.S., U.S. Military Academy
M.A., American University of Beirut

LTC. KILBERT E. LOCKWOOD, ORD C
Instructor, Ordnance Engineering
B.S., U.S. Military Academy
M.S., University of Michigan

MAJ. BERNARDO LOEFFKE, INF
Assistant Professor, Russian
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. JACK R. LOGAN, INF
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.P.A., Princeton University

MAJ. BENJAMIN A. LOGERQUIST, TC
Assistant Professor of Mechanics
B.S., University of Wisconsin
M.S., Virginia Polytechnic Institute

MR. ALEXANDER A. LONGO
Research Psychologist, Office of Research
B.A., Loyola University of Los Angeles
M.A., Fordham University

COL. FREDERICK C. LOUGH, PROFESSOR
Head of Department of Law
B.S., U.S. Military Academy
LL. B., Columbia University
Industrial College of the Armed Forces

COL. WILLIAM J. LOVE, CE
Comdg O, 1st Regt. USCC
B.S., U.S. Military Academy
M.S., Massachusetts Institute of Technology
Air War College

LTC. WILLIAM F. LUEBBERT, SIG C
Associate Professor, Director, Educational Resources and Technology Division, Office of the Dean
B.S., U.S. Military Academy
M.S., E.E.A., Ph.D., Stanford University

MAJ. EUGENE S. LYNCH, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy

CPT. JAMES F. LYNCH, ARTY
Instructor in German
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. RAYMOND M. MACEDONIA, AGC
Instructor, Military Psychology and Leadership
B.B.A., University of Pittsburgh
M.B.A., Wharton of University of Pennsylvania

COL. DONALD G. MacWILLIAMS, PROFESSOR
Head of Department of Chemistry
B.S., U.S. Military Academy
M.S., Ohio State University
Ph.D., Rensselaer Polytechnic Institute

MAJ. KEVIN L. MAHER, TC
Instructor in Social Sciences
B.A., Fordham University
M.B.A., Harvard University

MAJ. PAUL MAKOWSKI, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

CPT. WADE V. MALLARD, JAGC
Instructor in Law
A.A., Augusta College
B.B.A., LL.B., University of Georgia

MAJ. JOHN B. MALLONEE, ARTY
Instructor, Military Psychology and Leadership
B.S., University of Maryland
M.S., University of Miami

MAJ. DANDRIDGE M. MALONE, INF
Instructor, Military Psychology and Leadership
B.A., Vanderbilt University
M.A., Purdue University

MR. NICHOLAS MALTZOFF
Assistant Professor, Russian
S.M., École Bréguet, France

CPT. LEO J. MANSI, JR., FC
Administrative and Management Officer, Academic Computer Center
B.S., La Salle College

MAJ. ROBERT H. MARCRUM, ARTY
Instructor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

CPT. BYRON D. MARSH, ARMOR
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. LEWIS R. MARTIN, ARTY
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. JOHN E. MARTLING, INF
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. JOHN MASON, ARMOR
Senior Armor Instructor, Office of Military Instruction
B.A., University of Massachusetts

LTC. JOHN W. MASTIN, CE
Associate Professor, Director, Operations Division, Office of the Dean
B.S., U.S. Military Academy
M.S., M.E., Harvard University

MAJ. ROBERT N. MATHIS, ARTY
Assistant Professor of Physics
B.S., U.S. Military Academy
M.S., Tulane University

CPT. JAMES S. MATHISON, ARMOR
Admissions Officer
B.S., U.S. Military Academy
M.A., The Ohio State University

MAJ. JOHN R. MATTESON, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. DAVID F. MAURER, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S.E., Princeton University

MAJ. ELMER C. MAY, ARTY
Instructor in History of the Military Art
B.S., M.A., Iowa State University

MAJ. WILLIAM S. MAY, INF
Assistant Professor of English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. THOMAS J. McANIFF, INF
Assistant Professor of English
B.S., U.S. Military Academy

CPT. JOSEPH S. McAULIFFE, JAGC
Assistant Professor of Law
A.B., LaSalle College
LL.B., Harvard University

MAJ. FOX McCARTHY, INF
Assistant Information Officer
B.S., U.S. Military Academy

MAJ. JOHN M. McCARTHY, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MAJ. FREDERICK J. McCONVILLE, ARTY
Assistant Professor and Operations Officer, Office of the Dean
B.S., U.S. Military Academy
M.P.A., Harvard University

REVEREND ROBERT F. McCORMICK
Assistant Catholic Chaplain, USMA
B.A., Fordham University

MAJ. BILLY A. McDONALD, ARTY
SI, Office in Physical Education
B.A., University of North Carolina

MAJ. BRUCE B. McDONOUGH, INF
Instructor in Physical Education
B.A., U.S. Military Academy

MISS CATHERINE McGUINN
Order Librarian, USMA Library

CPT. JAMES G. McKNIGHT, QMC
Administrative Officer, Office of the Director of Athletics
B.B.A., Texas A&M

MAJ. DAVID P. McLAIN, ARTY
Instructor in English
A.B., Davidson College
M.A., University of Pennsylvania

LTC. WALTER L. McMAHON, INF
Instructor in English
B.A., University of Dayton
M.A., Pennsylvania State University.

MAJ. DAVID A. McNERNEY, INF
Assistant Professor, French
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. GRIFFITH J. McREE, SIG C
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of Arizona

MAJ. DANA G. MEAD, ARMOR
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Ph.D., Massachusetts Institute of Technology

MAJ. WARNE D. MEAD, INF
Building & Ground Officer, Office of Physical Education
B.S., U.S. Military Academy

MAJ. IVAN R. MECHTLY, JR., CML C
Instructor in Mathematics
B.S., U.S. Military Academy
M.E., Texas A&M

MAJ. PETER S. MECKEL, AIS
Assistant Professor, Russian
B.A., San Jose State College
M.A., Middlebury College

LTC. GERALD W. MEDSGER, CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., California Institute of Technology

MAJ. JOHN J. P. MEEHAN, JR., INF
Assistant Professor in Electricity
B.S., U.S. Military Academy
M.S., Tulane University

MR. WILLIAM MEEK
Assistant Football Coach
B.S., University of Tennessee

CPT. WARREN L. METZGER, AGC
Instructor in Social Sciences
B.A., M.A., Pennsylvania State University

MAJ. RALPH E. MILES, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., Ohio State University

MAJ. JAMES R. C. MILLER, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
B.S.C.E., M.S.N.E., University of Michigan

MAJ. MILTON L. MILLER, ARTY
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. ROBERT H. MILLER, CML C
Assistant Professor of Chemistry
B.S., U.S. Military Academy
M.S., Ph.D., Pennsylvania State University

MAJ. WILLIAM R. MILLER, CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S.C.E., University of Illinois

MAJ. ROBERT R. MILLS, JR., CE
Assistant Professor of Physics
B.S., University of Wisconsin
M.S., North Carolina State College

MR. ROBERT M. MISCHAK
Assistant Football Coach
B.S., U.S. Military Academy

MAJ. GERALD C. MITCHELL, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S.E., Purdue University

MAJ. GIAC P. MODICA, ARTY
Tactical Officer, USCC
B.A., St. Bonaventure University

CPT. THOMAS R. MOONEY, ARTY
Instructor in Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. MOORAD MOORADIAN, TC
Instructor in Social Sciences
B.Ed., Rhode Island College
M.A., University of Rhode Island

THE RIGHT REV. MONSIGNOR JOSEPH P. MOORE
Rector and Catholic Chaplain, USMA
B.A., St Joseph's Seminary

MAJ. MARSHALL L. MOORE, INF
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Georgia Institute of Technology

CPT. RILEY R. MOORE, 3d, INF
Instructor in Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

CPT. THOMAS L. MOORE, JR., JAGC
Instructor in Law
B.B.A., LL.B., University of Miami

CPT. LEON K. MORASKI, CE
Instructor in Astronomy
B.S., U.S. Military Academy
M.S., Air Force Institute of Technology

COL. JOHN W. MORRIS, CE
Deputy Commandant
B.S., U.S. Military Academy
M.S.C.E., University of Iowa
Army War College

LTC. JAMES L. MORRISON, JR., ARMOR
Assistant Professor of Social Sciences
B.A., Virginia Military Institute
M.A., University of Virginia

MAJ. THEODORE J. MORTENSEN, JR., INF
Instructor of Physical Education
B.S., Pennsylvania State University

MAJ. ROBERT G. MOSCATELLI, ARMOR
Instructor, Office of Military Instruction
B.S., U.S. Military Academy

CPT. JAY C. MUMFORD, AIS
Instructor in Social Sciences
B.A., M.A., University of Utah

MAJ. JOHN T. MURCHISON, JR., ARMOR
Assistant Professor of English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. JAMES R. MURPHY, USAF
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
B.A., M.A. (Oxon)

MAJ. SAMUEL L. MYERS, JR., ARMOR
Assistant Professor of Automotive Engineering
B.S., U.S. Military Academy
M.S., University of Michigan

MAJ. RAMON A. NADAL, II, INF
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Oklahoma State University

CPT. MICHAEL R. NAWROSKY, INF
Aide-de-Camp, USCC
B.S., U.S. Military Academy

CPT. JOHN O. NEAL, JR., ARTY
Instructor in French
B.S., U.S. Military Academy
M.A., Middlebury College

COL. CHARLES P. NICHOLAS, PROFESSOR
Head of Department of Mathematics
B.S., U.S. Military Academy
Armed Forces Staff College

CPT. ROBERT J. NICHOLSON, AIS
Admissions Officer
B.S., U.S. Military Academy

LTC. JACK NORTON, JAGC
Assistant Professor of Law
A.B., Ohio University
LL.B., Miami University
M.A., Fletcher School of Law and Diplomacy (Tufts University)

CPT. SAMUEL C. NUTT, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

LTC. ROGER H. NYE, ARMOR
Associate Professor of Social Sciences
B.S., U.S. Military Academy
M.P.A., Princeton University

REVEREND EDWIN F. O'BRIEN
Assistant Catholic Chaplain, USMA
A.B., M.A., St Joseph's Seminary

MR. JOSEPH M. O'DONNELL
Archivist, USMA
B.A., George Washington University

SGM ALFRED O'NEILL
Rifle Coach

CPT. KEVIN J. O'NEILL, ARTY
Instructor in German
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. WILLIAM E. ODOM, ARMOR
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.A., Columbia University

CPT. KARL E. OELKE, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. CHARLES T. OGREN, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S., Iowa State University

LTC. THOMAS C. OLDHAM, JAGC
Permanent Associate Professor of Law
LL.B., University of Miami

MAJ. CLARENCE A. OLSEN, AIS
Assistant Professor of the French Language
A.B., M.A., New York State College for Teachers

MAJ. THOMAS E. OLSON, CE
Assistant Professor in Electricity
B.S., U.S. Military Academy
M.S.E., Purdue University

MAJ. LEE D. OLVEY, ARMOR
Associate Professor of Social Sciences
B.S., U.S. Military Academy
B.A., M.A. (Oxon)
Ph.D., Harvard University

CPT. ENOCH M. OVERBY, III, JAGC
Instructor in Law
B.A., The Citadel
LL.B., Tulane University

MAJ. DONALD J. PALLADINO, CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. DAVE R. PALMER, ARMOR
Assistant Professor of History of the Military Art
B.S., U.S. Military Academy
M.A., Duke University

MR. JOSEPH M. PALONE
Instructor of Physical Education and Soccer Coach
B.S., Cortland State College

MR. DUANE PARCELLS
Assistant Football Coach
B.A., Wichita State University

LT. DELBERT M. PARKER, ARTY
Instructor of Physical Education
B.S., M.S., University of California at Los Angeles

MAJ. JOHN R. PARKER, INF
Assistant Professor and Deputy Director, Academic Computer Center
B.S., U.S. Military Academy
M.S., Arizona State

MAJ. WILLIAM R. PARKS, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. WILLIAM T. PARKS, INF
Plans Officer, Office of Military Instruction
B.S., U.S. Military Academy

MAJ. RUSSELL L. PARSONS, ARTY
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S.M.E., M.S.A.E., University of Southern California

CPT. FRANK A. PARTLOW, ARTY
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., Stanford University

MR. JAMES E. PEARSON
Chief, Technical Services Division, USMA Library
B.A., M.A., University of Oklahoma
M.A., (Library Science), University of Minnesota

LTC. DONALD D. PEIFER, SIG C
Executive Officer and S3, 3d Regiment
B.S., U.S. Military Academy
M.B.A., Harvard University

MAJ. DAVID L. PEMBERTON, INF
Executive Officer and S3, 4th Regiment
B.S., U.S. Military Academy

MAJ. NEWTON B. PENROSE, SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Polytechnic Institute of Brooklyn

CPT. RICHARD A. PETERSON, JAGC
Instructor in Law
B.A., LL.B., University of Minnesota

CPT. EDMUND B. PICCOLINO, AGC
Research Psychologist, Office of Research
A.B., Bucknell University
M.A., Ohio University
Ph.D., Illinois Institute of Technology

MISS ANNA E. PIERCE
Cataloger, USMA Library
B.S., New York State Teachers' College (Geneseo)

LTC. RALPH D. PINTO, SIG C
Associate Professor of History of the Military Art
B.S., U.S. Military Academy
M.B.A., Harvard University
LL.B., Georgetown University

CPT. ROBERT L. PHILLIPS, ARMOR
Aide-de-Camp, to the Superintendent
B.S., U.S. Military Academy

CPT. MARTIN L. PLASSMEYER, ARMOR
Instructor in English
B.S., U.S. Military Academy

CPT. FREDERICK B. PLUMBER, II, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. THOMAS F. PLUMMER, JR., ARTY
Assistant Professor of Geography of the USSR
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. ANTHONY G. POKORNY, JR., AT
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Michigan

MAJ. DONALD R. POPE, CE
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., Texas A&M

CPT. ROBERT T. POPE, JAG C
Instructor in Law
B.A., Georgia Tech
LL.B., Emory University

CPT. MARKO L. POPOVICH, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy

MAJ. JOHN J. PRENTICE, USAF
Assistant Professor of Ordnance Engineering
B.A.E., University of Minnesota
M.S.A.E., USAF Institute of Technology

CPT. EDWARD G. PRESTON, SIG C
Instructor, Academic Computer Center
B.S., University of Michigan
M.S., University of Arizona

MAJ. WALTER L. PRITCHARD, JR., ARMOR
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. DONALD B. PRUITT, AIS
Instructor in Russian
B.A., Middle Tennessee State College
M.A., Georgetown University

MAJ. HERBERT C. PUSCHECK, CE
Assistant Professor of Management Engineering and Operations Research
B.S., U.S. Military Academy
M.S., A.B.D. for Ph.D. Purdue University

MAJ. ROBERT A. RACHEK, INF
Chief, Military Science Branch, Office of Military Instruction
B.S., U.S. Military Academy

LTC. LOREN E. RADFORD, ARTY
Associate Professor of Physics
B.S., University of Washington
M.S., Ph.D., University of Virginia

MAJ. CHARLES M. RADLER, CE
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., Ph.D., University of Illinois

MAJ. JAMES H. RAMSDEN, ARTY
Instructor in Chemistry
B.S., U.S. Military Academy
M.S., Johns Hopkins University

MR. KENNETH W. RAPP
Assistant Archivist, USMA Library

MAJ. JAMES W. RAY, CE
Instructor, Office of Military Instruction
B.S., U.S. Military Academy
M.S., Ohio State University

MAJ. JOSEPH T. REARS, ARTY
Assistant Professor, French
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. LEONARD F. B. REED JR., ARTY
Assistant Professor of History of the Military Art
B.S., U.S. Military Academy
M.A., Duke University

MAJ. DONALD W. REEVES, CE
Assistant Professor of Geography
B.S., University of Illinois
M.S., Ohio State University

CPT. FRANK J. REDD, USAF
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., Stanford University

LTC. THOMAS A. REHM, INF
Assistant Professor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.A., University of Chicago

LTC. HOWARD REINER, CML C
Assistant Director of Instruction and Associate Professor, Department of Foreign Languages
B.A., Tufts University
M.A., Boston University

LTC. STANLEY E. REINHART, JR., ARTY
Associate Professor of Electricity
B.S., U.S. Military Academy
M.S.E.E., Ph.D., Georgia Institute of Technology

COL. WALTER J. RENFROE, JR.
Professor, Head of Department of Foreign Languages
B.S., U.S. Military Academy
M.A., Ph.D., Columbia University
Armed Forces Staff College

MAJ. WILLIAM D. RENNER, SIG C
Senior Signal Instructor, Office of Military Instruction
B.S., U.S. Military Academy

MAJ. RICHARD L. REYNARD, ARTY
Assistant Professor of Astronomy
B.S., U.S. Military Academy
M.S., University of Southern California

MAJ. CHARLES D. RICHARDS, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.E.E., University of Oklahoma

MAJ. GEORGE L. RICHARDSON, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of Southern California

CPT. ROBERT W. RIORDAN, JR., CML C
Assistant Professor of Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

SGM HERBERT ROBERTS, JR.,
Pistol Coach

MAJ. NICHOLAS J. ROBINSON, INF
Instructor in History of the Military Art
B.S., U.S. Military Academy

MAJ. LOUIS B. RODENBERG, JR., CE
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Princeton University

MAJ. GORDON B. ROGERS, JR., ARMOR
Instructor in Geography
B.S., U.S. Military Academy
M.A., University of Wisconsin

LTC. MANLEY E. ROGERS, CE
Associate Dean
B.S., U.S. Military Academy
M.S.C.E., California Institute of Technology

LTC. WILLIAM B. ROGERS, CE
Associate Professor of Engineering Fundamentals
B.S., University of Tennessee
M.A.E., University of Florida

MAJ. ROBIN J. ROLLER, ARMOR
Assistant Professor of Social Science
B.S., U.S. Military Academy
M.P.A., Harvard University
M.A., Fletcher School of Law and Diplomacy (Tufts University)

CPT. RICHARD G. ROSE, CML C
Instructor in Chemistry
A.B., San Jose State College
M.A., University of California

MISS JUNE ROSENHAUPT
Reference Librarian
Ph.B., University of Chicago
M.L.S. Catholic University of America

LTC. JAMES R. ROSS, AIS
Assistant Professor of the Chinese Language
B.A., University of California

CPT. LAWRENCE C. ROSS, ORD C
Assistant Professor of Ordnance Engineering
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. EARLY J. RUSH, III, CE
Assistant Professor of Civil Engineering
B.S., U.S. Military Academy
M.S.E., Princeton University

MR. J. THOMAS RUSSELL
Chief, Special Collections Division, USMA Library
B.A., Kenyon College
M.L.S., University of Michigan

LTC. JOHN RUTLEDGE, JR., CE
Assistant Professor of History of the Military Art
B.S., U.S. Military Academy
M.S., University of Illinois

MR. JOHN E. RYAN, JR.,
Swimming Coach and Assistant Business Manager
B.S., M.A. Ohio State University

MAJ. CHARLES P. SAINT, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MR. SAMUEL G. SALDÍVAR
Assistant Professor, Spanish
B.A., M.A., Florida State University

MAJ. JOHN B. SAMPSON, ARTY
Instructor in Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

COL. ROBERT W. SAMZ, ORD C
Associate Professor of Ordnance
B.S., U.S. Military Academy
M.S.M.E., University of Michigan
A.B.D. for Ph.D., Arizona State University

MAJ. JOSEPH F. SANTILLI, JR., INF
Assistant Professor, French
B.S., U.S. Military Academy
M.A., Middlebury College

COL. EDWARD A. SAUNDERS, PROFESSOR
Head of Department of Physics
B.S., U.S. Military Academy
M.S.E.E., Purdue University
Ph.D., Rensselaer Polytechnic Institute

CPT. ROBERT J. SCHIEMANN, ARMOR
Instructor in German
B.S., U.S. Military Academy
M.A., Middlebury College

COL. CHARLES H. SCHILLING, PROFESSOR
Head of Department of Military Art and Engineering
B.S., U.S. Military Academy
M.S.C.E., University of California
Ph.D., Rensselaer Polytechnic Institute

CPT. PETER B. SCHMIDT, SIG C
Instructor in French
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. MARSHALL D. SCHOONMAKER, ARMOR
Assistant Professor of Astronomy
B.S., U.S. Military Academy
M.S., University of Southern California

MAJ. LEWIS C. RANCH, ARMOR
Academic Counselor, Office of the Dean
B.S., U.S. Military Academy
M.A., Purdue University

MAJ. WILLIAM B. STREET, JR., CE
Associate Professor for Research
B.S., U.S. Military Academy
M.S., Ph.D., University of Michigan

MR. TAD SCHROEDER
Football Coach
B.A., LL.B., University of Cincinnati

MAJ. JOSEPH H. SCHWAR, JR., INF
Tactical Officer, USCC
B.S., U.S. Military Academy

CPT. WILLIAM L. SCHWARTZ, INF
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., The American University

MAJ. H. NORMAN SCHWARZKOPF, INF
Associate Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Southern California

BRIG. GEN. RICHARD P. SCOTT, USA
Commandant of Cadets
B.S., U.S. Military Academy
M.A., Columbia University
Armed Forces Staff College
National War College

CPT. JONATHAN W. SEARLES, ARMOR
Instructor in Mathematics
B.S., U.S. Military Academy

MAJ. JAMES L. SEELEY, ARTY
Tactical Officer, USCC
B.A., University of Missouri

LTC. CHARLES E. SELL, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S., Iowa State University

MAJ. JOHN O. B. SEWALL, INF
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
B.A., M.A., (Oxon)

CPT. RICHARD S. SEWARD, ARTY
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., State University of New York at Buffalo

CPT. THOMAS K. SEYBOLD, INF
Instructor in Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

LTC. MERLE G. SHEFFIELD, INF
Associate Professor of Physics
B.S., U.S. Military Academy
M.S., University of Virginia

CPT. JOHN T. SHERWOOD, JR., JAGC
Instructor in Law
B.S., American University
LL.B., Washington College of Law

MAJ. E. JOE SHIMEK II, ARMOR
Assistant Professor, Russian
B.S., U.S. Military Academy
M.A., Middlebury College

CPT. JAMES M. SIGLER, CE
Associate Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. KENNETH R. SIMILA, CML C
Instructor in Chemistry
B.S., U.S. Military Academy
M.S., U.S. Naval Post Graduate School

CPT. THEODORE W. SIMROE, JR., ARMOR
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

CPT. JOHN R. SISSON, INF
Assistant Professor of Social Sciences
B.A., M.A., The Ohio State University
Ph.D., University of California (Berkeley)

MAJ. LAWRENCE F. SKIBBIE, ORD C
Assistant Professor of Ordnance Engineering
B.S., U.S. Military Academy
M.S., New Mexico State University

MAJ. HERROL J. SKIDMORE, JR., CE
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., University of Illinois

CPT. WILLIAM J. SKINNER, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S.E., Princeton University

MAJ. ANTHONY A. SMITH, CE
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
Diploma, University of Paris
M.A., The American University

COL. FREDERICK A. SMITH, JR., PROFESSOR
Deputy Head of Department of Mechanics
B.S., U.S. Military Academy
M.S., Johns Hopkins University
M.B.A., George Washington University
Armed Forces Staff College
Industrial College of the Armed Forces

MAJ. LOWELL G. SMITH, ARTY
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Georgia Institute of Technology

MRS. MARILYNN K. SMITH
Reference Librarian
M.A., University of Colorado
M.S., Columbia University

LT. STEPHEN K. SMITH, MSC
Instructor in Social Sciences
B.S., Indiana University
B.A., M.A., (Oxon)

LTC. WESLEY C. SMITH, CE
Associate Professor of Environment
B.S., Pennsylvania Military College
M.A., Columbia University

MAJ. QUAY C. SNYDER, TC
Instructor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

MAJ. JOHN E. SOBRASKE, INF
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., Georgia Institute of Technology

MAJ. ANTHONY M. SOLBERG, ARMOR
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

MAJ. VERNON B. SONES, INF
Instructor in Military Psychology and Leadership
B.S., Pennsylvania State University
M.P.A., University of Pittsburgh

LCDR. CURTIS A. SORENSON, USN
Assistant Professor of History of the Military Art
B.S., U.S. Naval Academy

MR. ROBERT E. SORGE
Associate Director, Office of Physical Education
B.S., Shippensburg State College
M.A., Columbia University

MRS. DONNA SPAULDING
Cataloger, USMA Library
A.B., Tusculum College
M.S., Library Science, Syracuse University

MAJ. CRAIG H. SPENCE, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy
M.S., Georgia Institute of Technology

LTC. NORMAN A. SPIRO, SIG C
Assistant Professor of English
B.A., New York University
M.A., Northeastern University

MAJ. LON A. SPURLOCK, II, INF
Assistant Professor of English
B.S., U.S. Military Academy
M.A., Columbia University

LTC. THOMAS J. STACY, ARTY
Assistant Professor of the Russian Language
A.B., San Diego State College
M.A., Columbia University

MAJ. GEORGE J. STAPLETON, INF
Tactical Officer, USCC
B.S., U.S. Military Academy

MAJ. FRANCIS R. STEVENS, JR., ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. NORMAND A. STE MARIE, INF
Instructor in Military Psychology and Leadership
B.A., University of Maine
M.S., Tulane University

LTC. WILLIAM K. STOCKDALE, CE
Instructor in Civil Engineering
B.S., U.S. Military Academy
M.S., Ph.D., University of Illinois

MAJ. REED L. STONE, USAF
Assistant Professor of Astronomy
B.S., U.S. Military Academy
M.S., University of Michigan

MAJ. BRUCE F. STOUT, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. JAMES R. STRICKLAND, CE
Instructor in Mathematics
B.S., U.S. Military Academy
M.S. (CE and NE), University of Illinois

CPT. PETER L. STROMBERG, INF
Instructor in English
B.S., U.S. Military Academy
M.A., Cornell University

MAJ. CARL W. SULLINGER, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. ROBERT J. SUMMARY, MSC
Assistant Professor of Military Hygiene
B.A., Southern Illinois University

MAJ. WALLEN M. SUMMERS, INF
Instructor in Social Sciences
B.S., U.S. Military Academy
M.P.A., Harvard University

COL. EDWIN V. SUTHERLAND, PROFESSOR
Head of Department of English
B.S., U.S. Military Academy
M.A., Columbia University
Ph.D., University of Pennsylvania
Army War College

MAJ. WILLIAM E. SWEET, ARTY
Tactical Officer, USCC
B.S., Bowling Green University

MAJ. WILLIAM J. TAYLOR, JR., ARMOR
Assistant Professor of Social Sciences
B.S., University of Maryland
M.A., The American University

MAJ. CHARLES A. TEAGUE, INF
Army Aviation Advisor, Office of Military Instruction
B.S., Texas Christian University

MAJ. GERALD D. TEBBEN, USAF
Assistant Professor of Physical Geography
B.S., U.S. Military Academy
M.S., Texas A&M

MAJ. FRANK B. TENNANT, JR., SIG C
Deputy Director and Television Operations Officer, Instructional Television Center
B.F.A., University of Texas
M.A., University of Southern California

MAJ. RICHARD E. THOMAS, INF
Instructor, Office of Military Instruction
B.S., U.S. Military Academy

CPT. MARVIN L. THOMAS, JR., ARTY
Instructor in Portuguese
B.S., U.S. Military Academy

LTC. WILLIAM N. THOMAS, ARTY
Assistant Professor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

MISS MIRIAM E. THOMPSON
Cataloger, USMA Library
B.A., University of Connecticut
M.L.S., Pratt Institute

MAJ. JAMES F. THORNTON, JR., JAGC
Assistant Professor of Law
B.S., LL.B., Marquette University

CPT. THOMAS B. THROCKMORTON, INF
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

CPT. CHRISTIAN C. THUDIUM, JR., ARTY
Instructor in Geography
B.S., U.S. Military Academy
M.A., University of Wisconsin

CPT. DONALDSON P. TILLAR, ARTY
Instructor, Ordnance Engineering
B.S., U.S. Military Academy
M.S., University of Southern California

DR. FRITZ TILLER
Associate Professor of German
University of Berlin, Germany
M.A., Middlebury College
Ph.D., Yale University

MR. ERIC G. TIPTON
Baseball and 150-lb. Football Coach
B.A., Duke University

MAJ. DANIEL J. TOBIN, INF
Instructor in Military Psychology and Leadership
B.S., U.S. Military Academy
M.S., Purdue University

CPT. PAUL W. TOMICZEK, JR., CE
Assistant Professor of Physics
B.S., U.S. Military Academy
M.S., Pennsylvania State University

MAJ. JAY C. TOOLE, QMC
Instructor in French
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. JAMES E. TORRENCE, INF
Instructor in History of the Military Art
B.S., U.S. Military Academy
M.A., Duke University

MAJ. RICHARD L. TRIPP, INF
Instructor in History of the Military Art
B.S., U.S. Military Academy
M.A., Duke University

LT. STEPHEN G. TRUESDELL, INF
Instructor of Physical Education
B.S., M.S., University of California at Los Angeles

MAJ. EDWARD H. TUREK, USAF
Assistant Professor of History of the Military Art
B.S., Utah State University

MAJ. ROBERT E. TURNBULL, INF
Admissions Officer
B.S., U.S. Military Academy

MAJ. WILLIAM G. T. TUTTLE, JR., TC
Assistant Professor of Social Sciences
B.S., U.S. Military Academy
M.B.A., Harvard University

CPT. ERVEN S. TYLER, ARTY
Assistant Professor, Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. EDWARD VALENCE, JR., INF
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

LTC. RICHARD G. VANDER MEER, ARMOR
S1, USCC
B.S., U.S. Military Academy

LTC. ROBERT D. VANDERSLICE, MPC
Assistant Professor of the Spanish Language
B.A., University of Nebraska
M.A., Columbia University

MAJ. ALEXANDER A. VARDAMIS, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., Columbia University

MAJ. ROBERT V. VERMILLION, CE
Tactical Officer, USCC
B.S., U.S. Military Academy
M.S., Princeton University

MR. CLAUDE VIOLLET
Assistant Professor, French
B.A., University of Paris (Sorbonne)
M.A., Middlebury College

COL. JOHN H. VOEGTLY, MC
Surgeon and Head of the Department of Military Hygiene
B.S., M.D. University of Pittsburgh

MAJ. RAYMOND E. WALLACE, ARTY
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Missouri

CPT. DENNIS I. WALTER, ARTY
Instructor in Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Southern California

MR. FRANK E. WALTER
Sports Information Director
B.S., University of Puget Sound

MAJ. HOWARD C. WALTERS, JR., ARMOR
Assistant Professor, Military Psychology and Leadership
B.S., Washington State University
M.A., Columbia University

MAJ. WILLIAM J. WEAFER, ARTY
S3, Office of Physical Education
B.S., U.S. Military Academy
M.S., University of Oregon

CPT. ROBERT M. WEEKLEY, ARTY
Instructor in Social Sciences
B.S., U.S. Military Academy
M.A., The American University

MR. EGON A. WEISS
Librarian, USMA
B.A., Harvard University
M.A., Boston University
M.S. (Library Sciences), Simmons College

CPT. RICHARD D. WELCH, JR., ARTY
Assistant Professor of Mechanics
B.S., U.S. Military Academy
M.S., University of Illinois

MISS MARION B. WELLAR
Cataloger, USMA Library
Library Certificate, Riverside Library School, University of California

LTC. JAMES W. WENSYEL, AIS
Assistant Professor of English, and Executive Officer
B.S., U.S. Military Academy
M.A., M.L., University of Pittsburgh

MR. DENNON R. WEST
Golf Coach

CW4 O'BRYAN S. WEST, AGC
Personnel Officer, USCC
B.S., Clemson College

LTC. ROBERT H. WEST, ARTY
Information Officer
B.S., University of Oklahoma

CPT. LYMAN G. WHITE, JR., INF
Instructor in Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

MAJ. JOHN C. WILKINSON, INF
Instructor in Chemistry
B.S., U.S. Military Academy
M.S., Pennsylvania State University

COL. SUMNER WILLARD, PROFESSOR
Deputy Head of Department of Foreign Languages
B.A., M.A., Ph.D., Harvard University

CPT. DONALD B. WILLIAMS, ARTY
Instructor in Physics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. DONALD R. WILLIAMS, ARTY
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

LT. GEORGE H. WILLIAMS, JR., CE
Instructor of Physical Education
B.S., Pennsylvania State University
M.A., Wheaton College

MAJ. GLEN W. WILLIAMS, ORD C
Instructor in Mechanics
B.S., Western Kentucky State College
M.S., New Mexico State University

MAJ. NEIL S. WILLIAMSON, III, ORD C
Assistant Professor of Engineering Fundamentals
B.S., U.S. Military Academy
M.S., University of Michigan

MAJ. JAMES S. WILLIS, JR., SIG C
Instructor in Physics
B.S., U.S. Military Academy
M.S., Ph.D., Rensselaer Polytechnic Institute

CPT. FREDERICK L. WILMOTH, ARMOR
Instructor in Spanish
B.S., U.S. Military Academy
M.A., Middlebury College

REVEREND ARTHUR J. WILSON
Assistant Chaplain, USMA
B.A., Duke University
B.D., Duke Divinity School

CPT. ROBERT E. WINTERS, INF
Instructor in English
B.S., U.S. Military Academy
M.A., University of Pennsylvania

MAJ. EDWARD K. WINTZ, CE
Assistant Professor Astronomy
B.S., University of California
M.S., Ph.D., Ohio State University

MAJ. JOHN W. WOODMANSEE, JR., ARMOR
Assistant Professor of History of the Military Art
B.S., U.S. Military Academy
M.S., George Washington University

MR. JOHN I. WOODRUFF
Deputy Director of Admissions and Registrar, USMA

MR. STANLEY WORDEN
Audio-Visual Librarian, USMA Library
A.B. University of Delaware
M.L.S., Pratt Institute Library School

MAJ. RICHARD E. WORKS, CE
Instructor in Mathematics
B.S., Northeastern University
M.S., Iowa State University

CPT. RUSH S. YELVERTON, ARTY
Assistant Professor of Mathematics
B.S., U.S. Military Academy
M.S., Rensselaer Polytechnic Institute

MAJ. DAVID C. YOUNG II, INF
Chief, Admissions Office
B.S., U.S. Military Academy
M.A., Columbia University

CPT. CEDRIC J. ZABRISKIE, SIG C
Instructor in Electricity
B.S., U.S. Military Academy
M.S.E.E., Georgia Institute of Technology

CPT. WILLIAM T. ZALDO, III, ARTY
Instructor in Mathematics
B.S., U.S. Military Academy

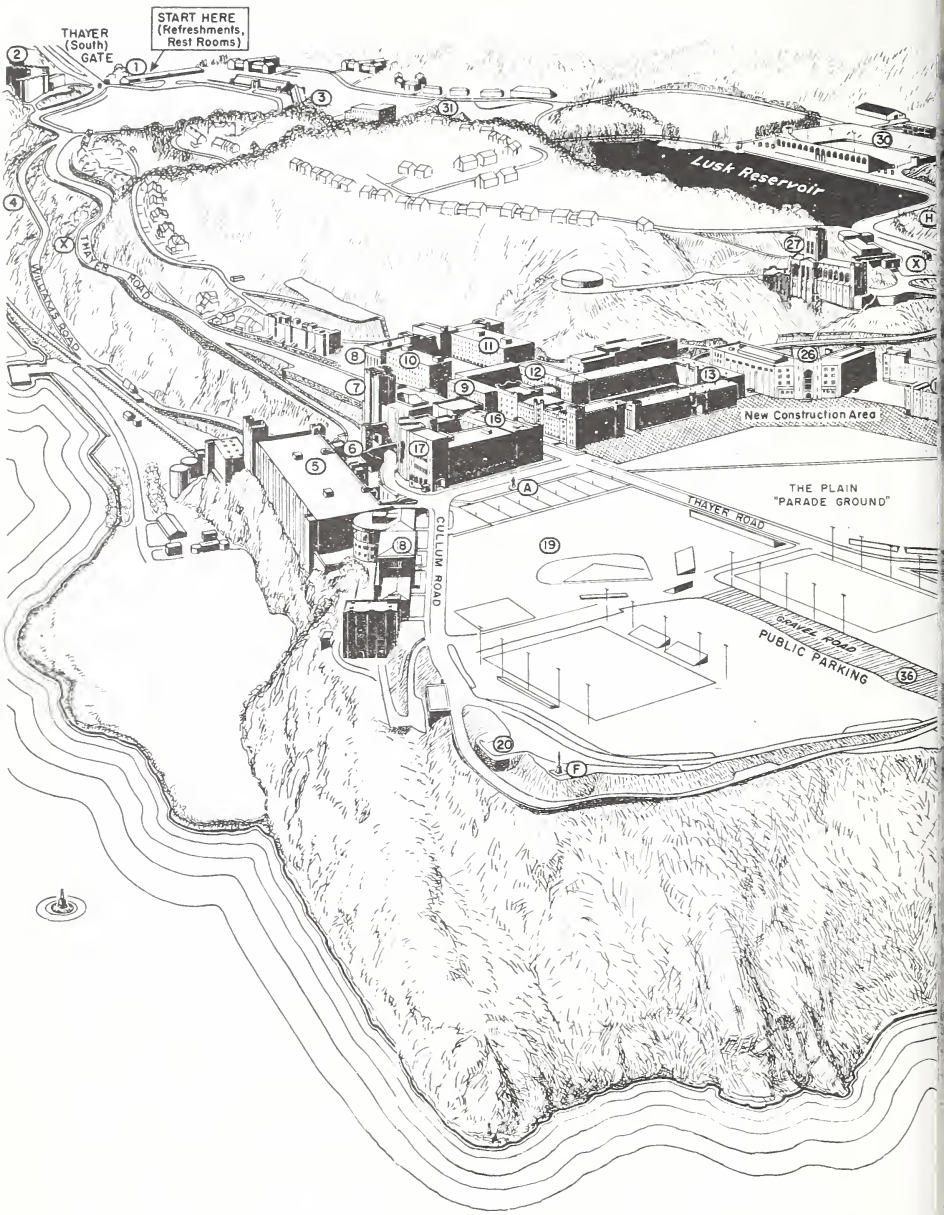
MAJ. ROBERT T. ZARGAN, ARMOR
Instructor, Military Psychology and Leadership
B.S., U.S. Military Academy
M.A., Wayne State University

MAJ. ROBERT W. GIULIANO, CE
Research and Analysis Division, Office of the Dean
B.S., U.S. Military Academy
M.S.E., M.A., Ph.D., Princeton University

LTC. GILBERT W. KIRBY, JR., PROFESSOR
Deputy Head of Department of Earth, Space and Graphic Sciences
B.S., U.S. Military Academy
M.A., California Inst. of Technology
Command & General Staff College
Army War College

LEGEND:

AGC	*Adjutant General's Corps*
AIS	*Army Intelligence and Security*
ARTY	*Artillery*
CE	*Corps of Engineers*
CML C	*Chemical Corps*
FC	*Finance Corps*
INF	*Infantry*
JAGC	*Judge Advocate General's Corps*
ORD C	*Ordnance Corps*
QMC	*Quartermaster Corps*
SIG C	*Signal Corps*
TC	*Transportation Corps*
USA	*United States Army*
USA Ret	*United States Army, Retired*
USAF	*United States Air Force*
USCC	*United States Corps of Cadets*
USMA	*United States Military Academy*
USN	*United States Navy*



POST PROPER - UNITED STATES MILITARY ACADEMY

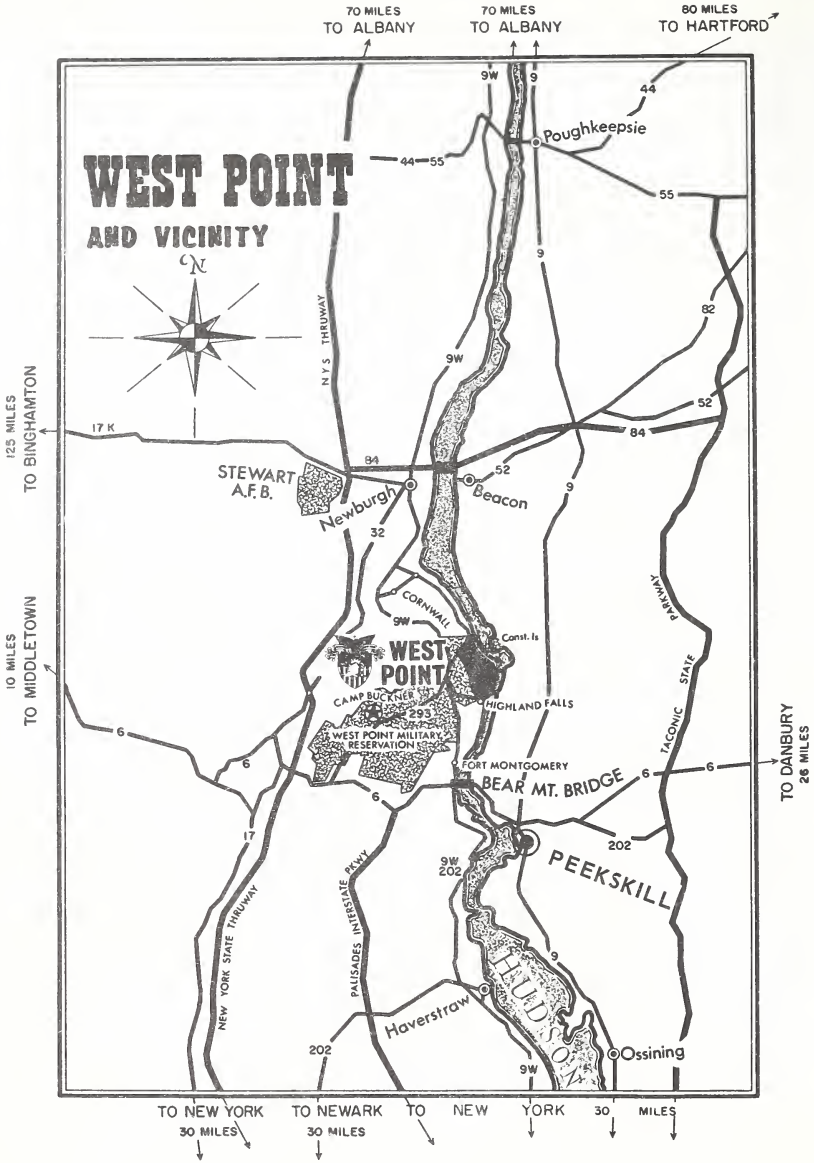
LEGEND

1. Visitors Information Center
2. Hotel Thayer
3. Snack Bar
4. Bus Parking
5. Thayer Hall
6. Museum
7. Administration Building
8. U. S. Army Hospital
9. Grant Hall

9-15. Cadet Barracks

16. Bartlett Hall
17. Library
18. Cullum Hall
19. Doubleday Field
20. Fort Clinton
21. Superintendent's Quarters
22. Commandant's Quarters
23. Dean's Quarters
24. Trophy Point
25. Gymnasium
26. Washington Hall
27. Cadet Chapel
28. Catholic Chapel
29. Old Cadet Chapel
30. Michie Stadium
31. Smith Rink
32. Fort Putnam
33. Amphitheatre
34. Main Snack Bar
35. Fieldhouse
36. Public Parking

A. Patton Monument
B. Thayer Monument
C. Sedgwick Monument
D. Battle Monument
E. Washington Monument
F. Kosciuszko Monument
G. Wirt Robinson Monument
H. Air Cadet Memorial
X. Rest Rooms



West Point and Vicinity Map

Index

	Page
Academic Board, USMA	12
Academic Board, Consultants	13
Academic Programs, Index	11
Academic Qualification, General	134
Activities Section	109
Administration, USMA	2
Admissions	117
Advanced Studies Program	15
Allied Cadets	130
Appointment	139
Appointment, Upon Graduation	92
Aptitude for the Service	92
Army Nominations	126
Association of Graduates	171
Awards, Academic	100
Awards, Athletic	105
Awards, Military	103
Awards and Distinctions	100
Board of Visitors, Annual	169
Buildings	143
Cadets, Corps	91
Calendar, Academic 1967–68	III
Canal Zone Nominations	125
Candidate Test Sites	133
Career Training	95
Catholic Religious Activities	114
Chemistry, Department of Physics and Chemistry	22
College Board Examinations	135
Competing Alternate Nominations	140
Competitive Method, Nominations	126
Computer Center, Academic	40
Computers, Digital, Department of Electricity	30
Congressional Competitive Nominations	125
Congressional Nominations	125
Corps of Cadets—Organization	91
Counseling & Advising	140
Courses, Elective	19
Courses, Standard Academic Program	17
Crossroads Africa, Department of Social Sciences	65
Dean, Office	21
Debate Council, West Point	75
Debate, National Tournament	74
Deceased Veterans, Sons of, Nominations	128
Departments, Academic	21
Department of Tactics	94

	Page
Deposit Upon Entrance	141
Disqualification	138
Distinguished Cadets	100
District of Columbia, Nominations	125
Earth, Space, and Graphic Sciences, Department	25
Economics, Department of Social Sciences	63
Educational Philosophy, USMA	14
Electives	16
Electricity, Department	29
Electronics, Department of Electricity	29
Engagement for Service	142
Engineering, Department of Military Art and Engineering	51
Engineering, Mathematics-Science, Elective Courses	19
English, Department	32
Environment, Department of Earth, Space, and Graphic Sciences	26
Examination, June—at West Point	134
Examining Centers, January and March 1966	132
Extracurricular Activities	109
Foreign Cadets	130
Foreign Languages, Department	35
Forum, West Point	76
French, Department of Foreign Languages	35
Geography, Department of Earth, Space, and Graphic Sciences	25
German, Department of Foreign Languages	36
Gifts Program	175
Guam, Nominations	125
Guidance for Appointees	140
History of West Point	3
History, Department of Social Sciences	63
Honor, Code	153
Honors Courses	16
Honor Military and Naval Schools, Nominations	129
Instruction, Methods	16
Intercollegiate Athletics	112
Jewish Religious Activities	114
Law, Department	40
Lecture Program, 1966–67	80
Library, West Point	81
Map, West Point and Vicinity	204
Mathematics, Department of	41
Mathematics, Science-Engineering, Elective Courses	19
Mechanics, Department	47
Medal of Honor, Sons of Persons Awarded, Nominations	129
Medical Examination, Facilities: Authorized to Conduct	165
Medical Examination Taken for Other Service Academies	156
Medical Examination for U.S. Military Academy	136
Medical, Special Consideration	156
Military Art, Department	51
Military Hygiene, Department	56
Military Instruction, Office	94

	Page
Military Programs, Mission	89
Military Psychology and Leadership, Office	67
Mission of the Military Academy	1
Mission, Military Programs	89
Mission, Academic Programs	1
Monuments, West Point	143
Museum, West Point	86
Nominations, Army	126
Nominations, General	125
Nominations to U.S. Military Academy	125
Nuclear Engineering, Department of Military Art and Engineering	51
Nuclear Physics, Department of Physics and Chemistry	60
Oath of Allegiance	142
Obligation Service, Upon Graduation	142
Ordnance, Department	57
Pay and Allowances	92
Physical Aptitude Examination	135
Physical Aptitude Examination, Examples of Test Items	155
Physical Education, Office	97
Physics, Department of Physics and Chemistry	60
Portuguese, Department of Foreign Languages	35
Post Graduate Service Life	149
Preparations, Academic	119
Preparatory School, U.S. Military Academy	127
Presidential Nominations	126
Principal-Alternate Nominations	126
Programs, Academic-General	15
Programs, Standard and Advanced	17
Protestant Religious Activities	114
Puerto Rico, Nominations	125
Qualification, Determination	138
Qualified Alternates	140
Qualifying Examinations, When to Take	131
Reapplication of a Candidate	140
Regular Army Nominations	126
Religious Activities	114
Reserve, Army Nominations	128
Russian, Department of Foreign Languages	35
Samoa, American, Nominations	125
Schedule, Standard Academic	90
Schedule, Typical Daily	90
Scholarships	78
Sciences, Mathematics-Engineering, Elective Courses	19
Service Obligation, See Engagement for Service	142
Social Science, Department of Social Science	63
Social Sciences, Elective Courses	64
Societies, West Point	172
Sons of Deceased Veterans, Nominations	128
Spanish, Department of Foreign Languages	35
Staff and Faculty	181

	Page
Statutory Admission Requirements	117
Student Conference on U.S. Affairs (SCUSA)	74
Superintendents of the Military Academy	178
Tactics, Department	94
Thayer Award, Recipients	173
Validation	15
Vice Presidential Nominations	125
Virgin Islands, Nominations	125
West Point, Buildings	143
West Point, History	3
West Point, Library	84
West Point, Museum	86
West Point, Reservation	202

For information concerning Admission to the United States Military Academy

Write

Director of Admissions and Registrar
United States Military Academy
West Point, New York 10996

☆ U.S. GOVERNMENT PRINTING OFFICE: 1967—O 263-878

UNIVERSITY OF FLORIDA
3 1262 09283 7672